



**INOGEN ONE G3 OXYGEN CONCENTRATOR  
SERVICE MANUAL**

**96-03997-00-01**

Revision A

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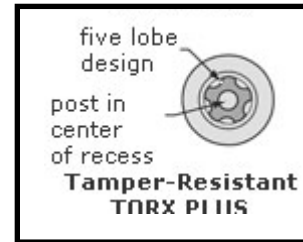
# SP-501 and SP-502 Inogen One G3 Front and Rear Housing Replacement

## Parts Required:

1. SP-501, G3 Housing, Front
2. SP-502, G3 Housing, Rear

## Tools Required:

1. T10 Torx Driver



## Notes:

1. When removing screws from the device, carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

## Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).

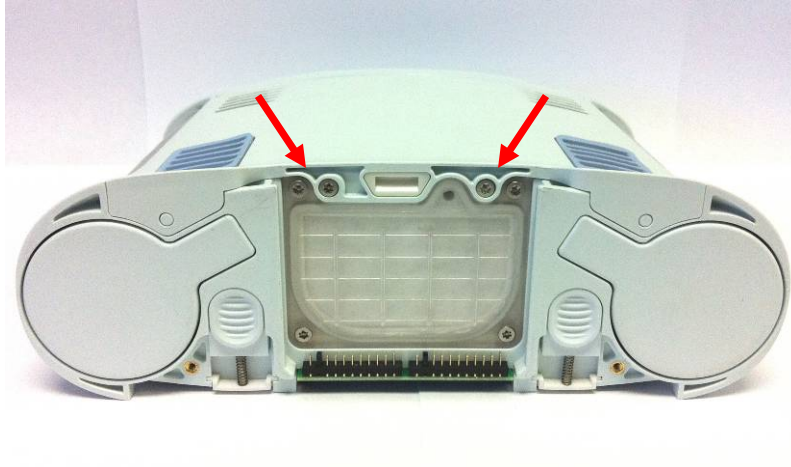


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.

### Instructions for Replacing the Housing:

1. Place the device on its back side.
2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 5) then push down and toward the device to secure the housing in the chassis.



Figure 5: Housing feet and corresponding chassis grooves

3. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
4. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten to 6 in-lbs.
5. Return the concentrator to the upright position
6. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

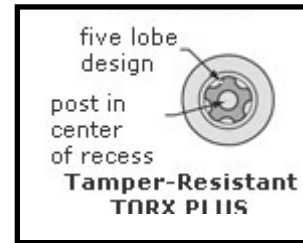
## SP-503 Inogen One G3 user Interface Panel Replacement

### Parts Required:

1. SP-503, User Interface Panel

### Tools Required:

1. T10 Torx Driver



### Notes:

1. When removing screws from the device, carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery



2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).

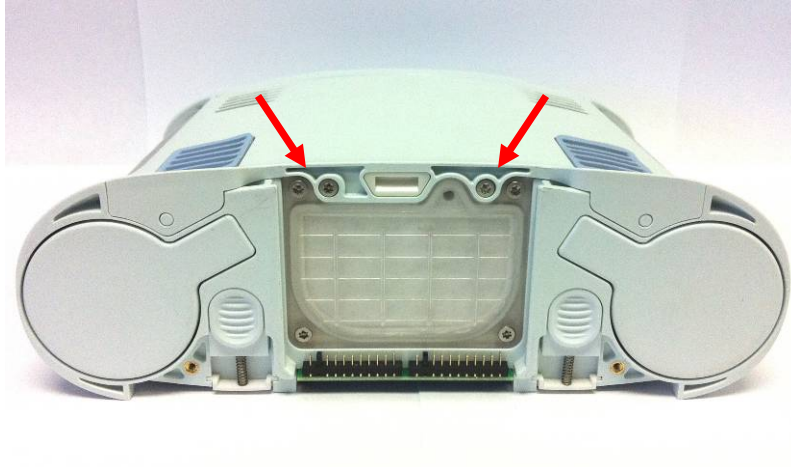


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.

### Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 5 and 6).

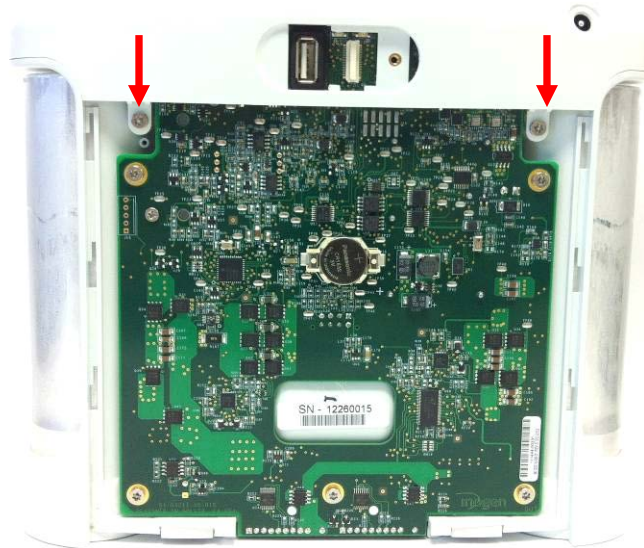


Figure 5: Location of rear screws



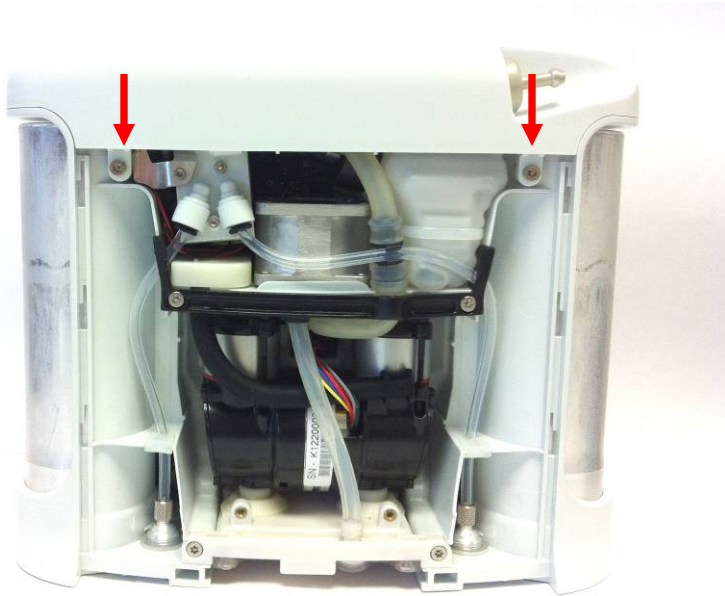


Figure 6: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 7).

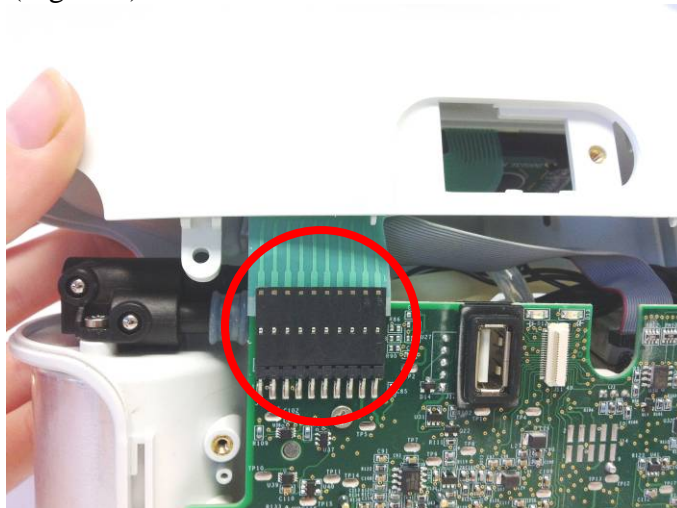


Figure 7: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 8). Remove the user interface panel.

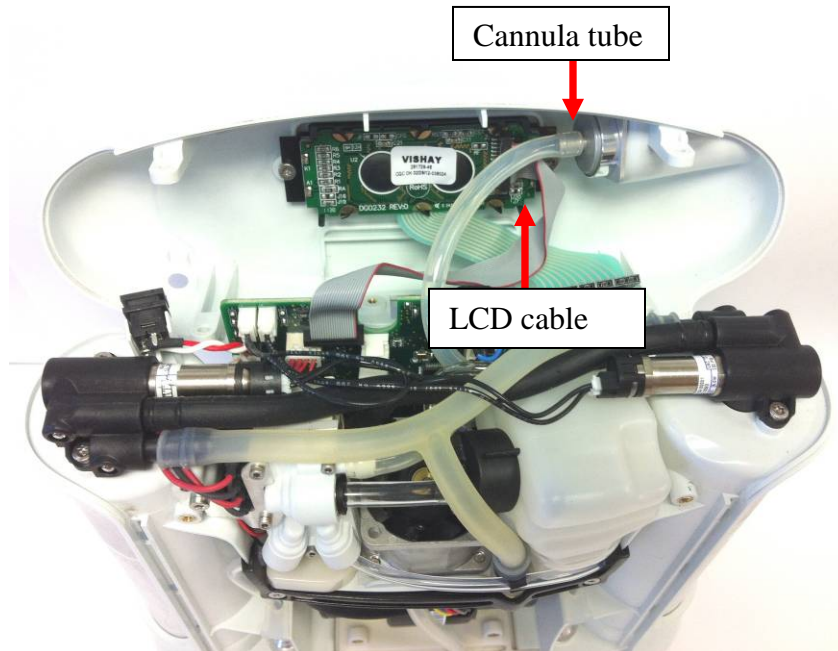


Figure 8: Remove cannula tube and LCD cable from user interface panel

### Instructions for Replacing the User Interface Panel:

1. Lay the user interface panel upside down with the underside of the LCD facing upward. Remove the two screws securing the LCD to the user interface panel (Figure 9).



Figure 9: Location of LCD screws

2. Place the LCD module against the back side of the UIP window on the new user interface panel. Orient the LCD module so that the LCD cable connector is on the right side of the user interface panel (as in Figure 9).

3. Re-install the two screws securing the LCD to the user interface panel, making sure that the LCD is straight and properly aligned in the UIP window (Figure 9). Tighten screws to 6 in-lbs.
4. Reconnect the power cable to the LCD module (Figure 10). *Note the location of the red wire.*

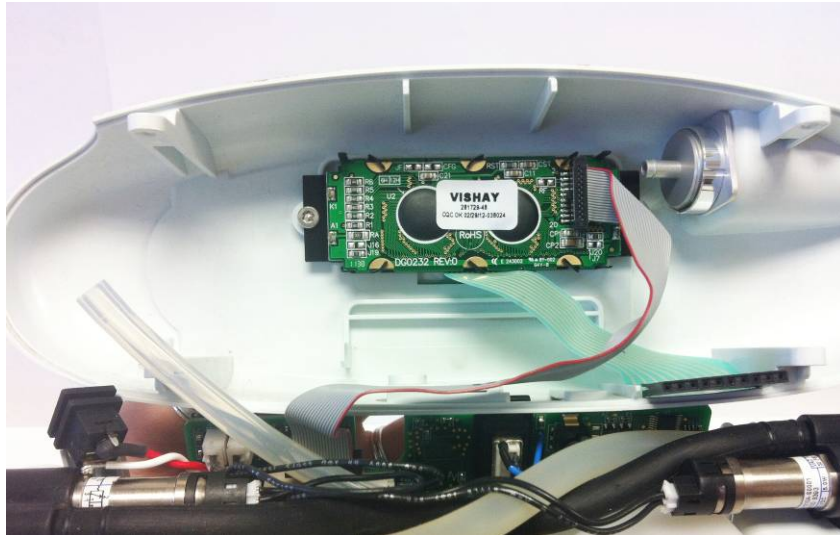


Figure 10: Orientation of LCD cable

5. Re-attach the cannula tubing to the cannula connector (Figure 8).
6. Plug the UIP cable back into the motherboard (Figure 7). Double check that the cables are fully seated to ensure a complete connection.
7. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
8. Re-install the four screws that connect the user interface panel to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs.

### Instructions for Replacing the Housing:

1. Place the device on its back side.
2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 11) then push down and toward the device to secure the housing in the chassis.



Figure 11: Housing feet and corresponding chassis grooves

3. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
4. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
5. Return the concentrator to the upright position
6. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

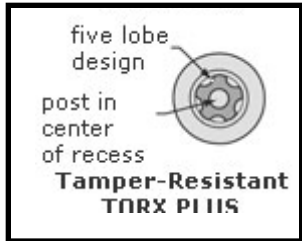
## SP-504 Inogen One G3 LCD Replacement

### Parts Required:

1. SP-504, LCD

### Tools Required:

1. T10 Torx Driver



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery



2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).



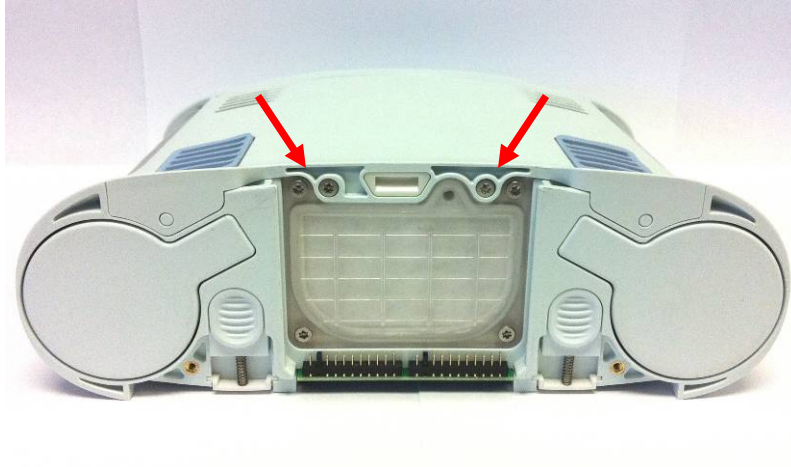


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.

### Instructions for Removing the LCD:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 5 and 6).

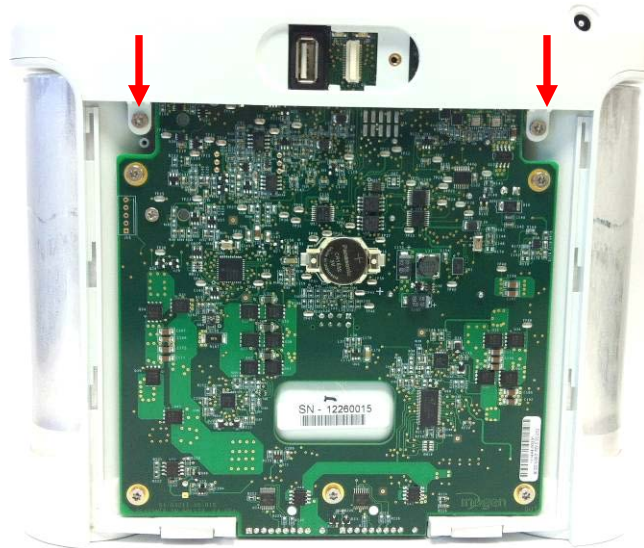


Figure 5: Location of rear screws

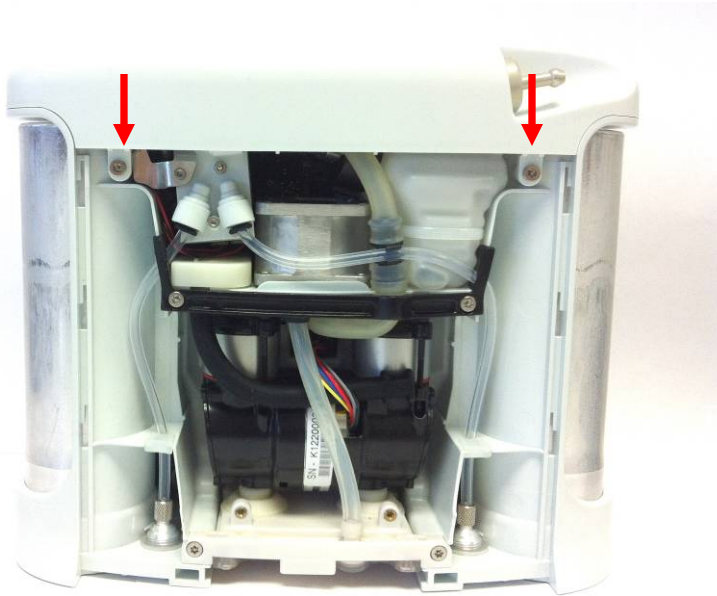


Figure 6: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 7).

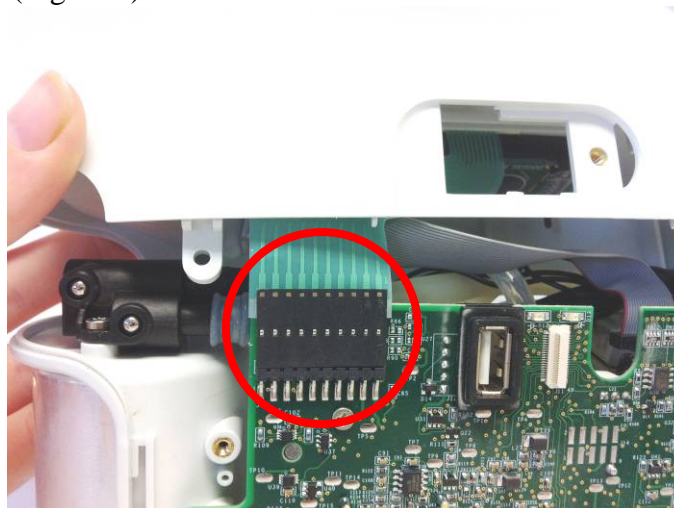


Figure 7: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 8). Remove the user interface panel.

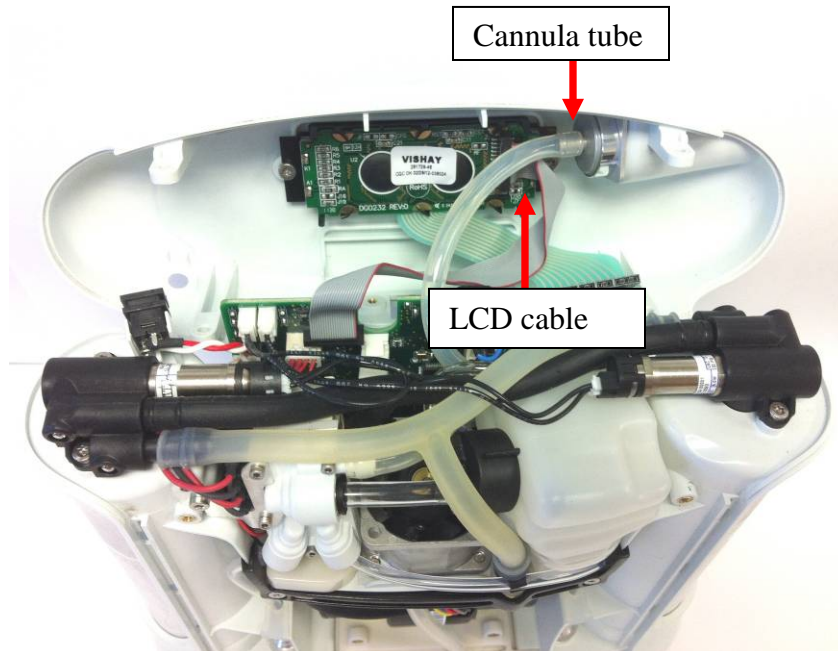


Figure 8: Remove cannula tube and LCD cable from user interface panel

4. Lay the user interface panel upside down with the underside of the LCD facing upward. Remove the two screws securing the LCD to the user interface panel and remove the LCD (Figure 9).

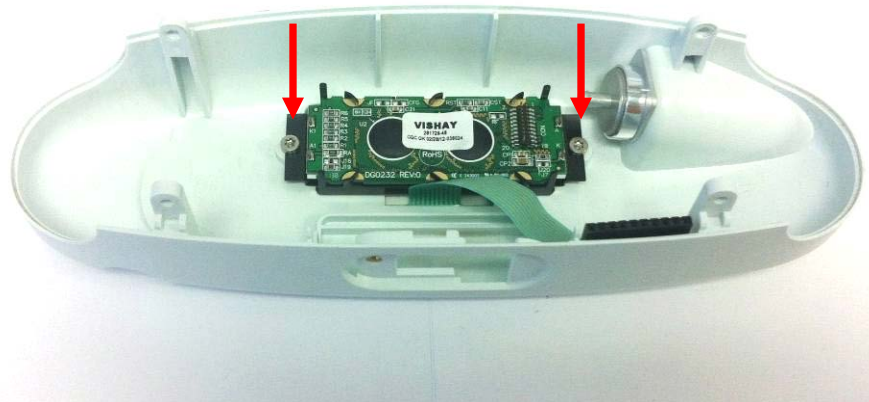


Figure 9: Location of LCD screws

### Instructions for Replacing the LCD:

1. Place the new LCD module against the back side of the UIP window on the user interface panel. Orient the LCD module so that the power cable connector on the LCD is on the right side of the user interface panel (as shown in Figure 9).

2. Re-install the two screws securing the LCD to the user interface panel, making sure that the LCD is straight and properly aligned in the UIP window (Figure 9). Tighten screws to 6 in-lbs.
3. Reconnect the cable to the LCD module (Figure 10)  
*Note the location of the red wire.*



Figure 10: Orientation of LCD cable

4. Re-attach the cannula tubing to the cannula connector (Figure 8).
5. Plug the UIP cable back into the motherboard (Figure 7). Double check that the cables are fully seated to ensure a complete connection.
6. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
7. Re-install the four screws that connect the user interface panel to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs.

### Instructions for Replacing the Housing:

1. Place the device on its back side.
2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 11) then push down and toward the device to secure the housing in the chassis.



Figure 11: Housing feet and corresponding chassis grooves

3. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
4. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
5. Return the concentrator to the upright position
6. Slide the battery back into the chassis. Ensure the battery clip is fully seated.



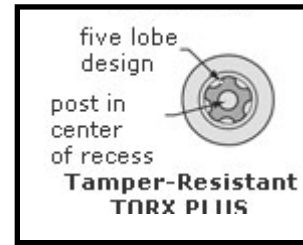
## SP-505 Inogen One G3 Upper Feed Tube Replacement

### Parts Required:

1. SP-505, Tube Inlet, T

### Tools Required:

1. T10 Torx Driver
2. Small Flathead Screwdriver



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery



2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).

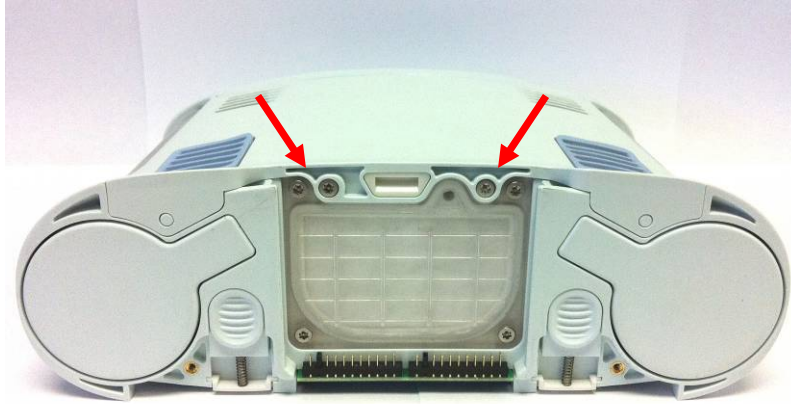


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.
6. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 5 and 6).

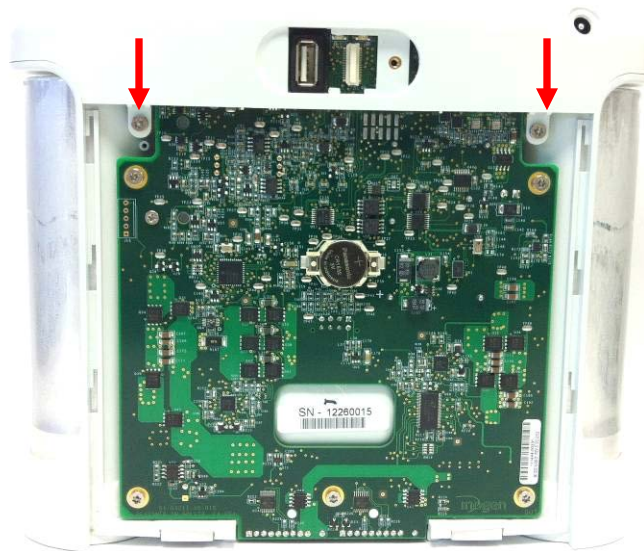


Figure 5: Location of rear screws

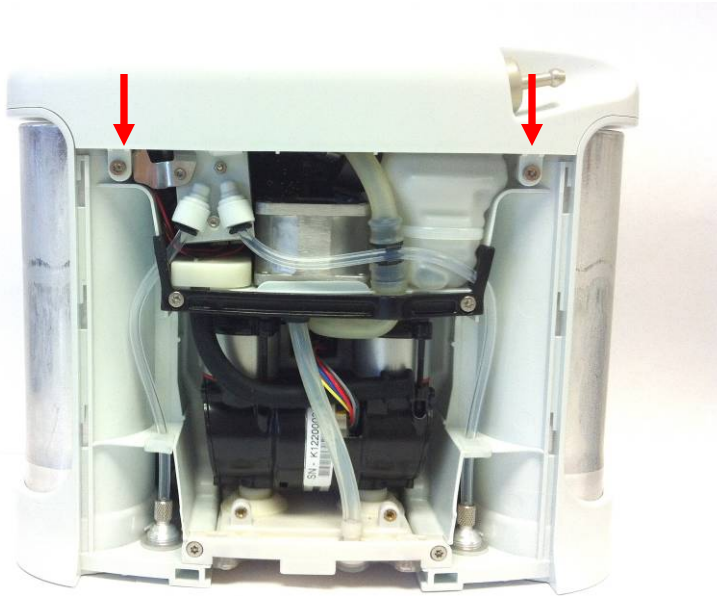


Figure 6: Location of front screws

7. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 7).

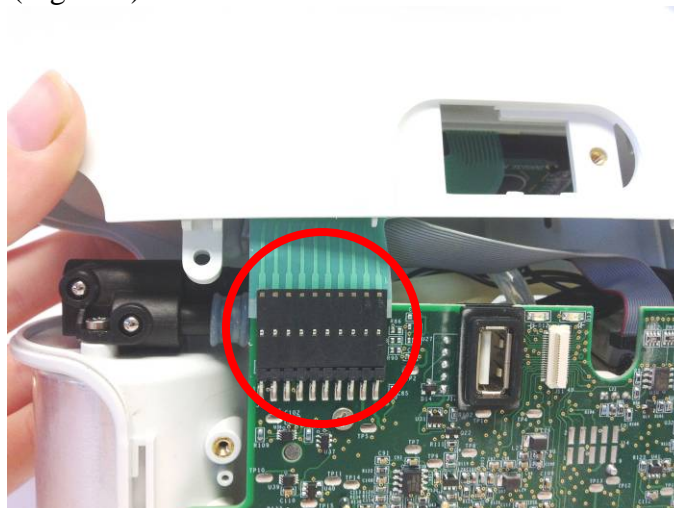


Figure 7: Unplug UIP cable from motherboard

8. Gently unplug the cannula tube from the user interface panel and the LCD cable from the motherboard (Figure 8) and set the user interface panel aside.

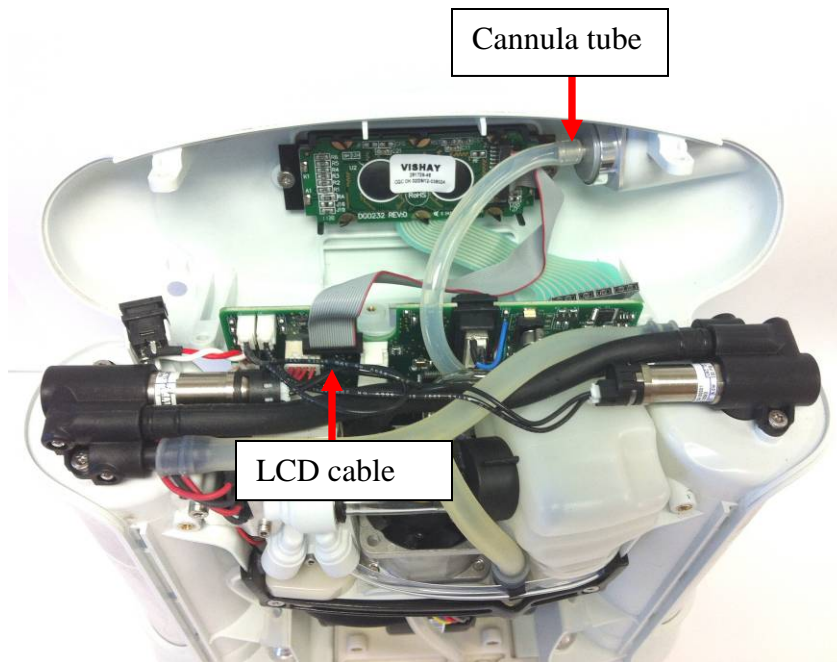


Figure 8: Remove cannula tube and power cable

### Instructions for Removing the Inlet T Tube:

1. Remove the upper feed tube from both feed waste manifolds using a small flathead screw driver, if necessary (Figure 9). *Be careful not to damage the sealing surface of the manifold barb when removing the tube.*

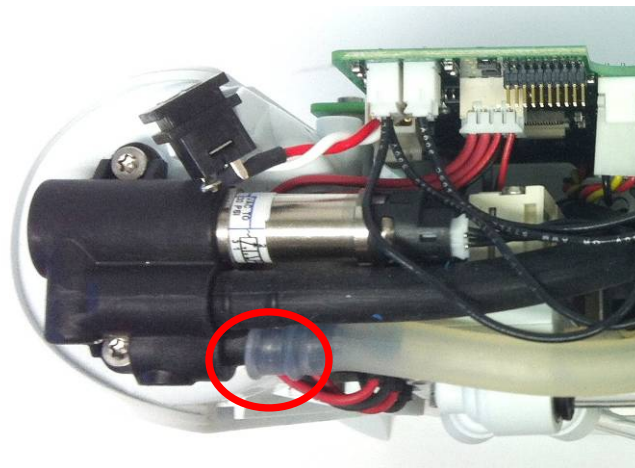


Figure 9: Inlet T Tube and feed waste manifold

2. Detach the Inlet T tube from the inlet union barb (Figure 10) and remove the Inlet T tube from the device.



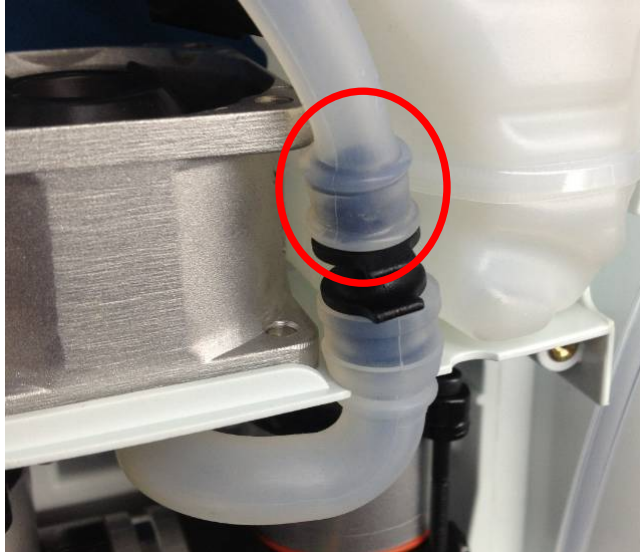


Figure 10: Inlet T tube and inlet union

### Instructions for Replacing the Inlet T Tube:

1. Reinstall the new inlet T tube by attaching the longer side to the right feed waste manifold and the shorter side to the left feed waste manifold (See Figure 11). *Seat the tubing as far as possible on to the manifold barb.*



Figure 11: Orientation of Inlet T Tube

2. Attach the bottom end of the new Inlet T tube to the inlet union (Figure 10). Make sure the tubing is fully seated onto the inlet union.

### Instructions for Replacing the Housing:

1. With the new feed waste manifold(s) fully installed, the user interface panel can now be replaced. Plug the LCD cable back into the motherboard (Figure 8). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 7).
3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs.

5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 12) then push down and toward the device to secure the housing in the chassis.



Figure 12: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.



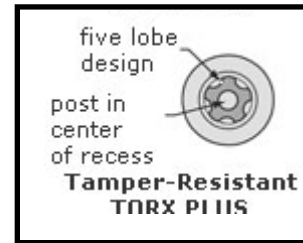
## SP-506 Inogen One G3 Exhaust T Tube Replacement

### Parts Required:

1. SP-506, Tube, Exhaust T

### Tools Required:

1. T10 Torx Driver
2. Small Flathead Screwdriver



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).

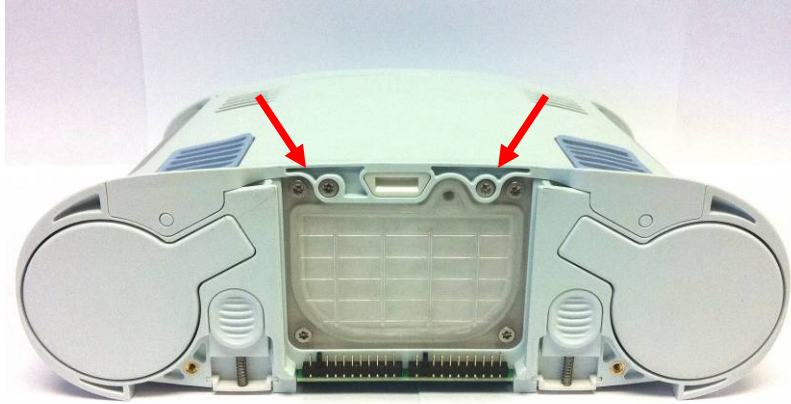


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.
6. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 5 and 6).

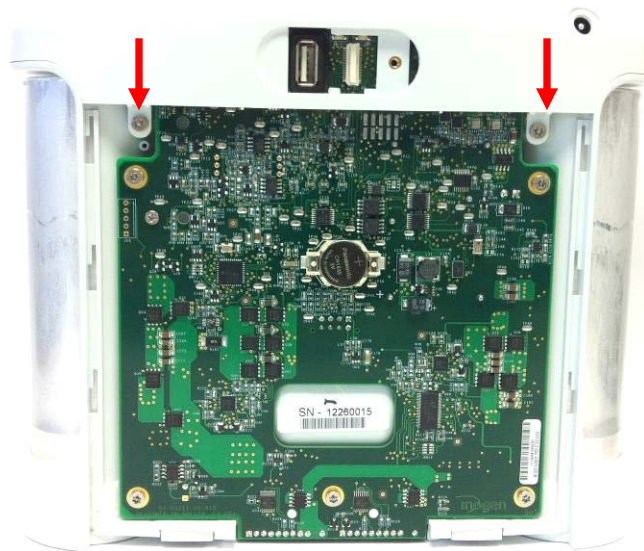


Figure 5: Location of rear screws

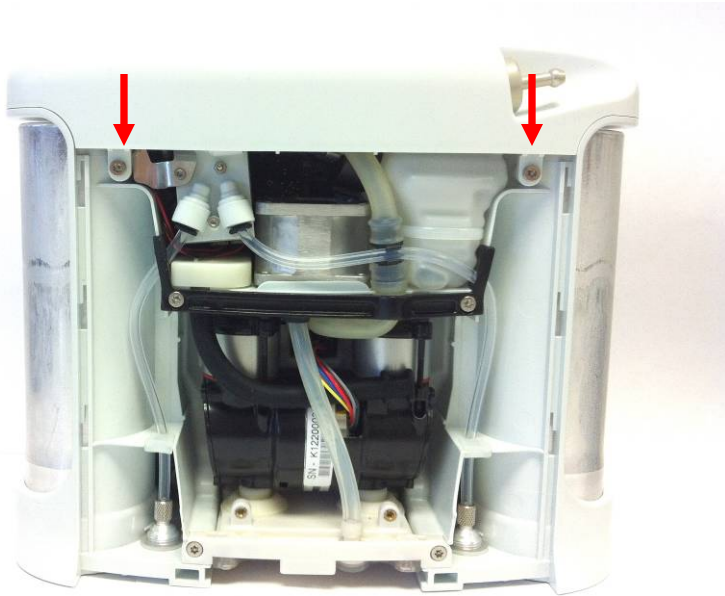


Figure 6: Location of front screws

7. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 7).

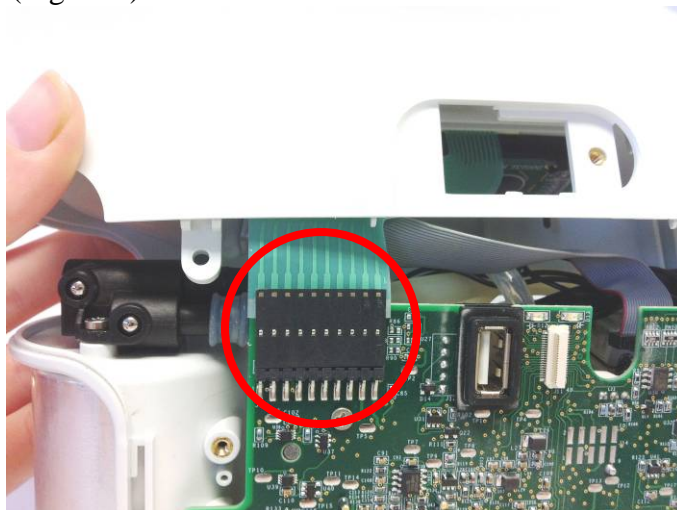


Figure 7: Unplug UIP cable from motherboard

8. Gently unplug the cannula tube from the user interface panel and the power cable from the motherboard (Figure 8) and set the user interface panel aside.



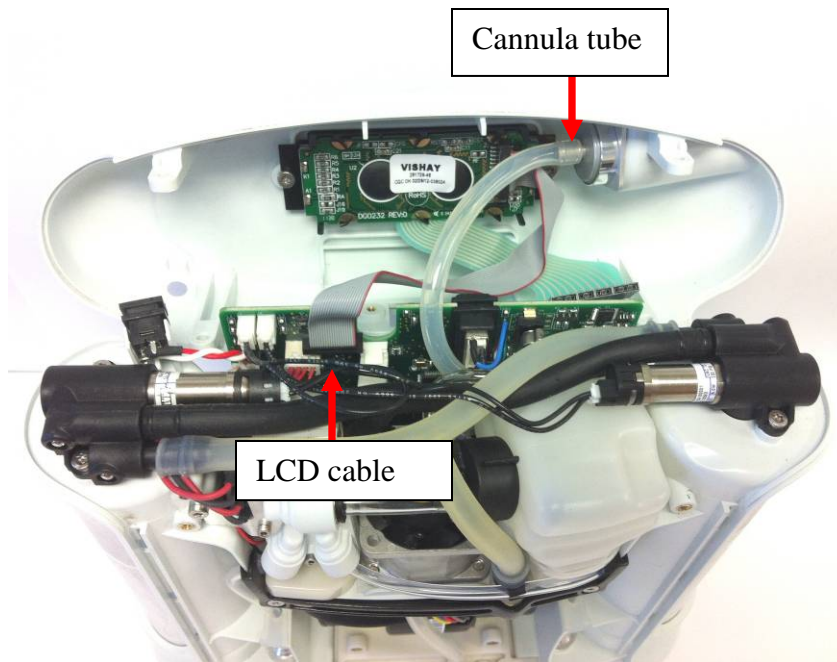


Figure 8: Remove cannula tube and power cable

### Instructions for Removing the Exhaust T Tube:

1. Remove the exhaust T tube from both feed waste manifolds using a small flathead screw driver, if necessary (Figure 9). *If the plastic barb comes out of the manifold, it can be pressed back into the housing and new tube.*

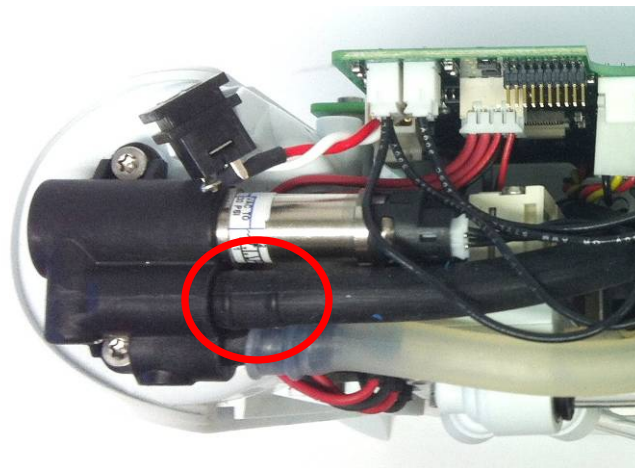


Figure 9: Exhaust T tube and feed waste manifold

2. Carefully detach the lower end of the exhaust T tube from the muffler by holding the muffler down while pulling upward on the exhaust T tube. Remove the tube from the device.

### Instructions for Replacing the Exhaust T Tube:

1. Reinstall the new exhaust T tube by attaching the longer side to the right feed waste manifold and the shorter side to the left feed waste manifold. See Figure 10.



Figure 10: Orientation of exhaust T tube

2. Attach the bottom end of the exhaust T tube to the upper barb on the muffler.

### Instructions for Replacing the Housing:

1. With the new feed waste manifold(s) fully installed, the user interface panel can now be replaced. Plug the LCD cable back into the motherboard (Figure 8). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 7).
3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 11) then push down and toward the device to secure the housing in the chassis.





Figure 11: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

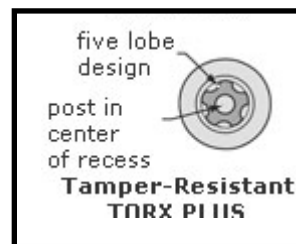
## SP-507 Inogen One G3 Filter Box Lid Replacement

### Parts Required:

1. SP-507, Housing, Filter Box, Lid

### Tools Required:

1. T10 Torx Driver
2. Small Flathead Screwdriver



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite to the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

### Instructions for Removing the Filter Box Lid:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. Place the device on its back and remove the four screws connecting the filter box lid to the device (Figure 2).

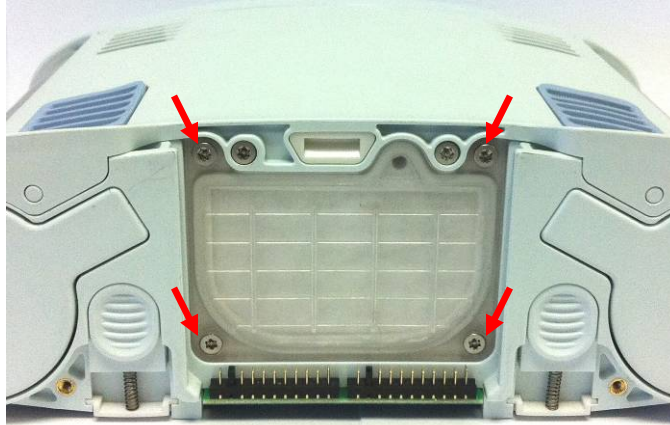


Figure 2: Filter box lid screws

3. Carefully pull the filter away from the device to remove. Use a flathead screwdriver to separate the filter from the device if necessary.

#### **Instructions for Replacing the Filter Box Lid:**

1. Insert the new filter into the allotted space on the chassis and re-install the four screws that connect it (Figure 2). Tighten screws to 6 in-lbs.
2. Return the concentrator to the upright position
3. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

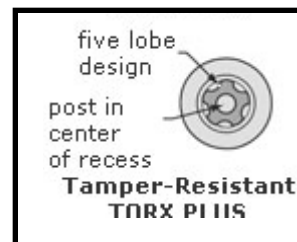
## SP-508 Inogen One G3 Fan Replacement

### Parts Required:

1. SP-508 Fan, Axial, 40x28

### Tools Required:

1. T10 Torx Driver
2. Pliers
3. Small Flathead Screwdriver



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the bottom of the chassis (Figure 4).



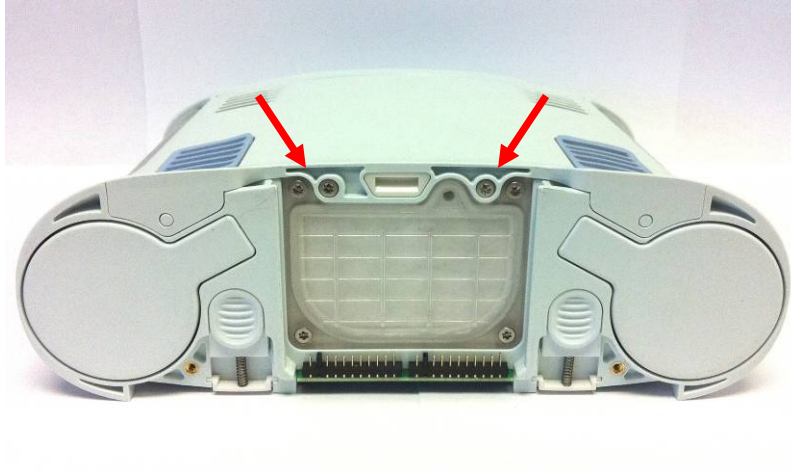


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.
6. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 5 and 6).

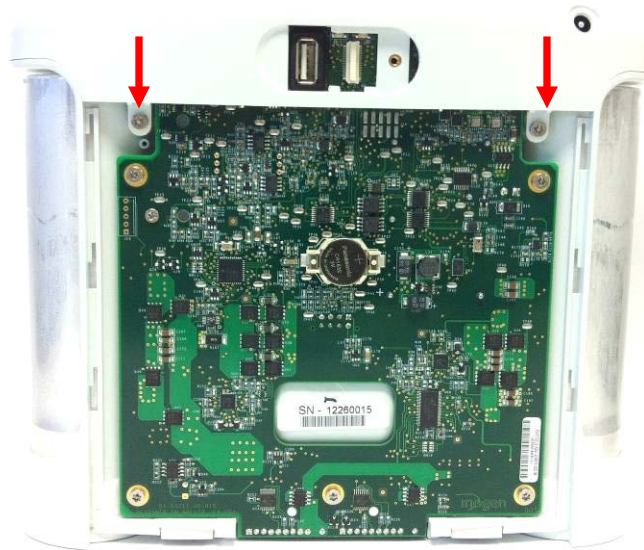


Figure 5: Location of rear screws

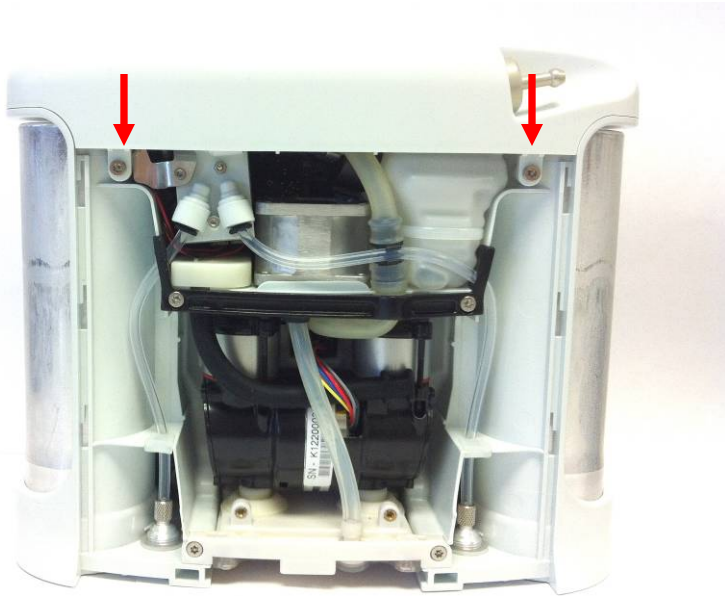


Figure 6: Location of front screws

7. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 7).

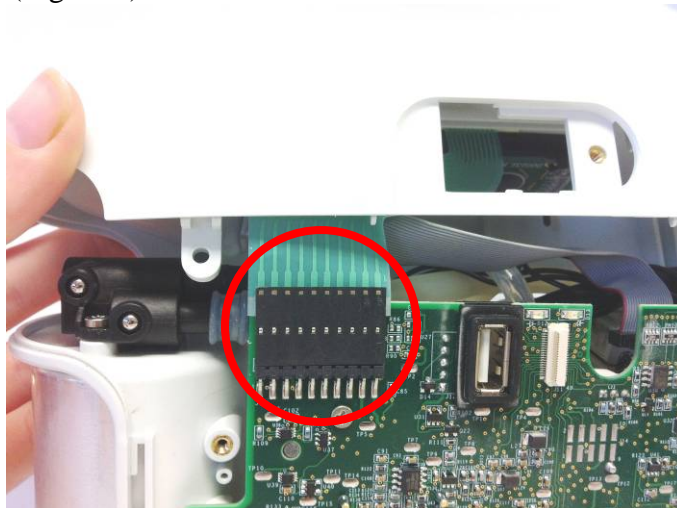


Figure 7: Unplug UIP cable from motherboard

8. Gently unplug the cannula tube from the user interface panel and the LCD cable from the motherboard (Figure 8) and set the user interface panel aside.

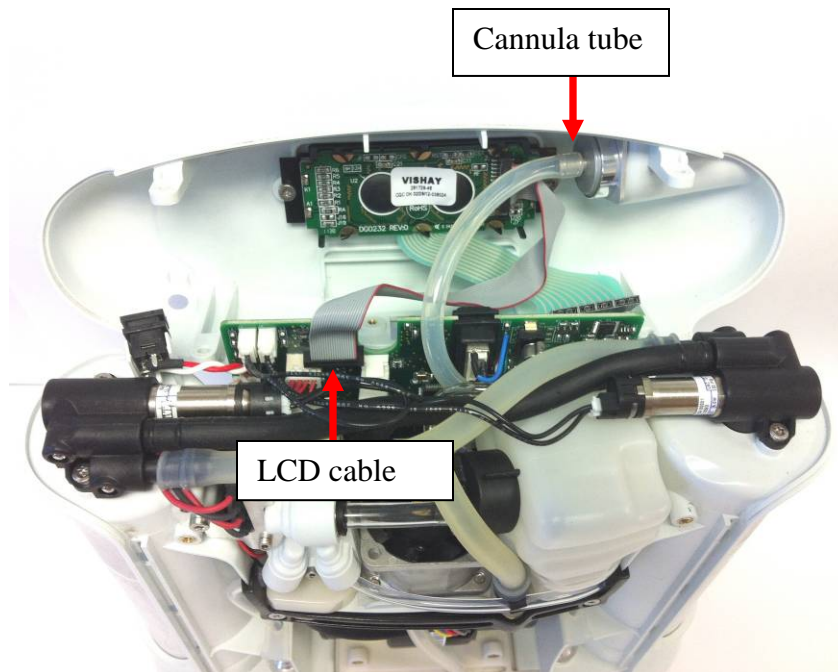


Figure 8: Remove cannula tube and LCD cable

### Instructions for Removing the Fan:

1. Unplug the fan cable from the motherboard. *Use pliers if necessary* (Figure 9).

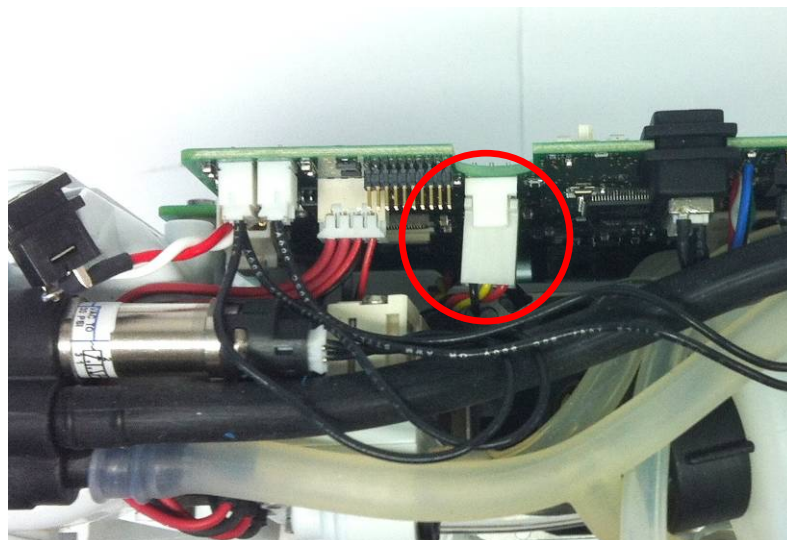


Figure 9: Location of fan connector on motherboard

2. In order to reach and remove the fan screws, the compressor and filter assembly must be removed. While facing the back of the unit, remove the center bottom screw from the motherboard (Figure 10). This screw attaches the filter body to the motherboard.



Figure 10: Location of rear filter body screw

3. Lay the unit on its back side. Unscrew the two screws attaching the filter body to the chassis on the front side of the device (Figure 11).

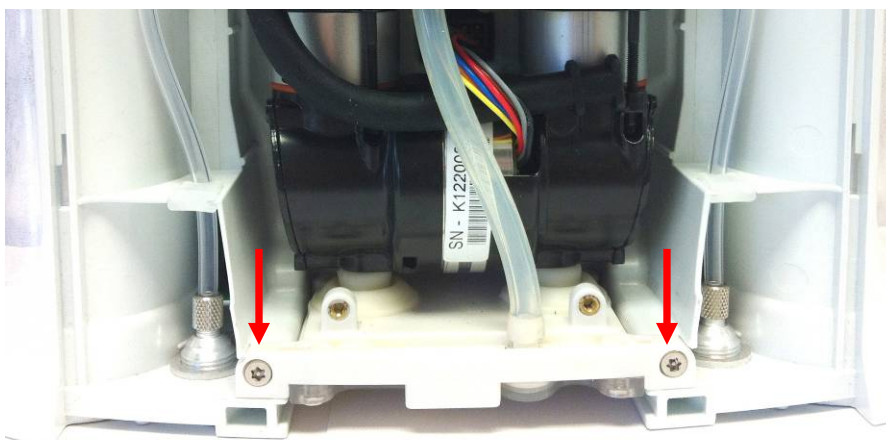


Figure 11: Location of front filter body screws

4. Remove the two screws that connect the tube bracket to the chassis and set the tube bracket aside (Figure 12).
5. Unplug the dual feed tube from the black inlet union using a flathead screwdriver (Figure 12).



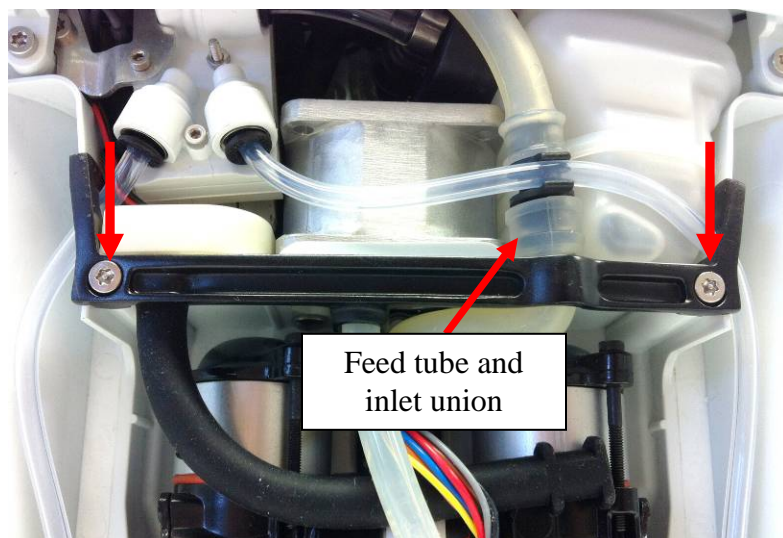


Figure 12: Tube bracket screws

6. Unscrew the screw connecting the other end of the dual feed tube to the chassis and remove the screw and washer (Figure 13).

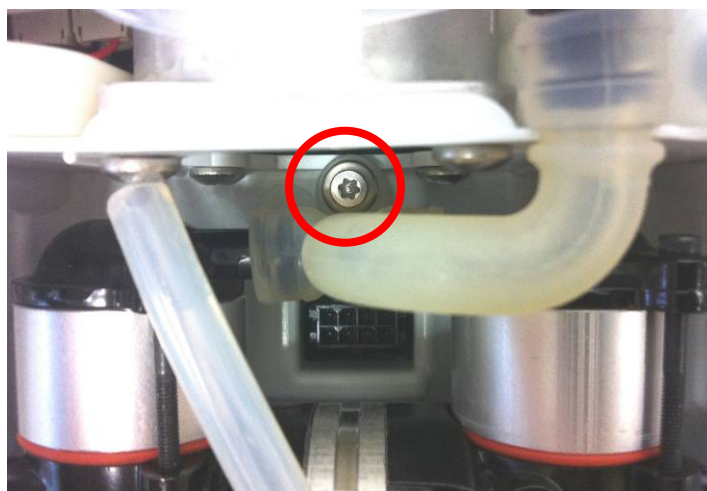


Figure 13: Dual feed tube screw and washer

7. Slide the exhaust tube out of the compressor cable loop (Figure 14).



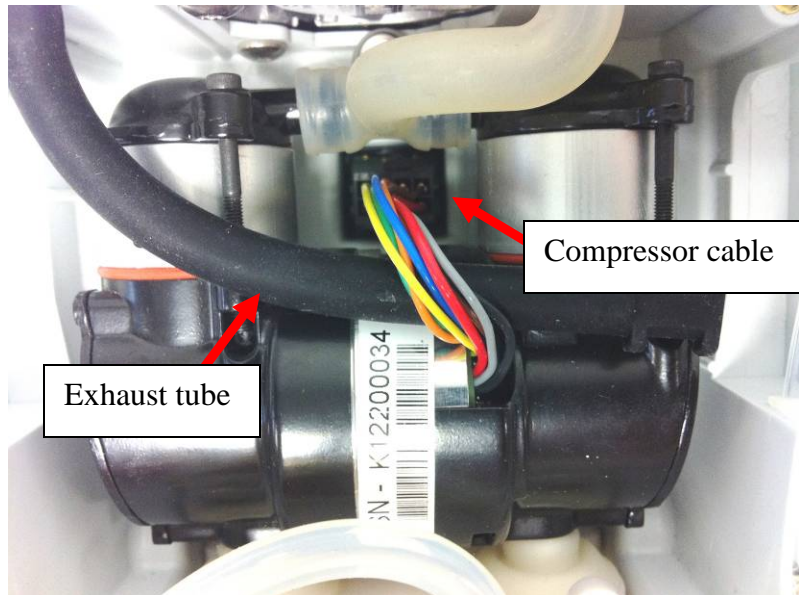


Figure 14: Compressor components

8. Unplug the compressor cable (Figure 14) from the motherboard using long pliers to press on the release clip while gently pulling the connector housing away from the motherboard. *Do not pull on the compressor lead wires.*
9. Gently slide the filter body and filter box lid assembly as well as the compressor assembly out of the device as a single unit (Figure 15). Set aside.

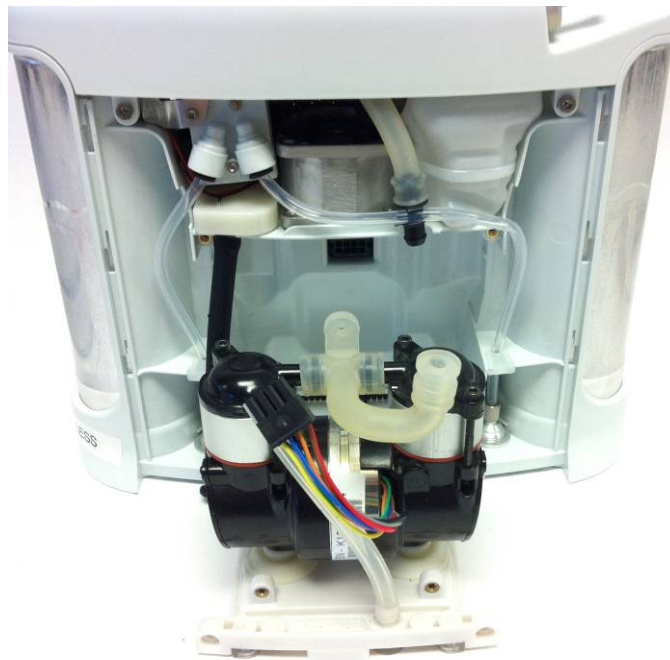


Figure 15: Compressor and filter assemblies

10. Locate and remove the four screws connecting the fan to the chassis (Figure 16)

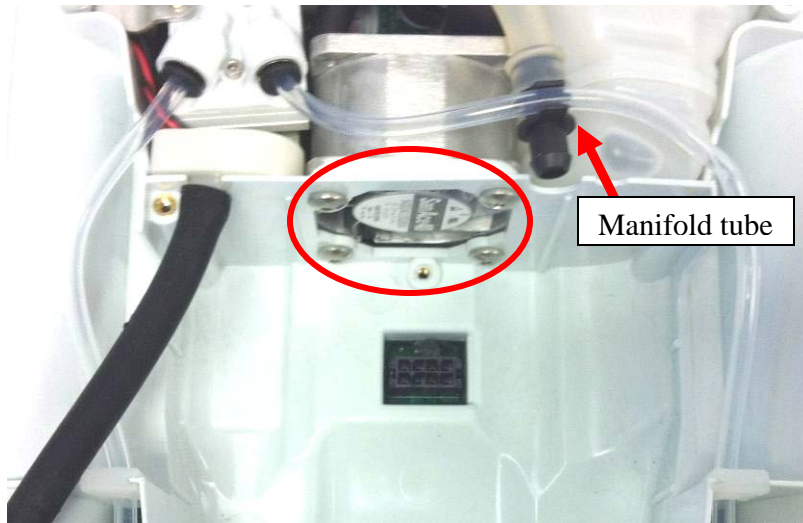


Figure 16: Location of fan screws

11. Release the small clear product manifold tube from the black inlet union to provide more space to remove the fan (Figure 16) and remove the fan from the device.

### Instructions for Replacing the Fan:

1. Insert the new fan in the allotted space on the chassis, making sure that the cable is facing the motherboard and the face of the fan is oriented downward (as shown in Figure 16). Re-install the four screws. Tighten screws to 6 in-lbs.
2. Replace the compressor and filter by sliding the filter body and filter box lid back into their respected slots in the chassis, being careful to align the compressor correctly in its space (Figures 17 and 18).



Figure 17: Slide filter body into chassis



Figure 18: Properly installed compressor

3. Secure the two screws on the front of the unit that attach the filter body to the rest of the device (Figure 11). Tighten screws to 6 in-lbs.
4. Reinstall the screw and washer that attach the dual feed tube to the chassis, tightening the screw just enough to connect the tube to the chassis (Figure 13). *Over tightening this screw will damage the tube.*

5. Plug the other end of the dual feed tube back into the black inlet union and clip the small clear tube back into its allotted space on the black inlet union. Make sure the feed tube is fully connected. Align the feed tube and inlet union assembly into the slot on the chassis (Figure 12).
6. With the tubing reattached, make sure that all tubes are oriented in their respected positions on the tube bracket before reinstalling the tube bracket and securing the two screws (Figure 12). Tighten screws to 6 in-lbs.
7. Plug the compressor cable back into the motherboard, assuring proper connection by gently pulling on the cable (Figure 14).
8. Place the black exhaust tube back through the compressor cable loop (Figure 14).
9. Return the unit to an upright position and plug the fan cable into the motherboard (Figure 9).
10. Replace the center bottom screw on the motherboard that attaches the filter body to the motherboard (Figure 10). Tighten screw to 6 in-lbs.

### Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 8). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector (Figure 8).
2. Reconnect the UIP cable to the motherboard (Figure 7).
3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 19) then push down and toward the device to secure the housing in the chassis.



Figure 19: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

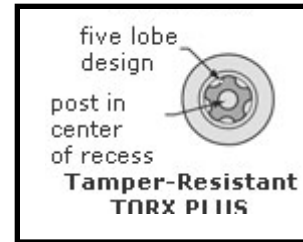
# SP-509 Inogen One G3 Compressor Replacement

## Parts Required:

1. SP-509, Assembly, Compressor

## Tools Required:

1. T10 Torx Driver
2. Small Flathead Screwdriver
3. 1/8" Hex Driver
4. Pliers



## Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

## Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery



2. Place the device on its back side and remove the two screws that secure the front housing to the bottom of the chassis (Figure 2).

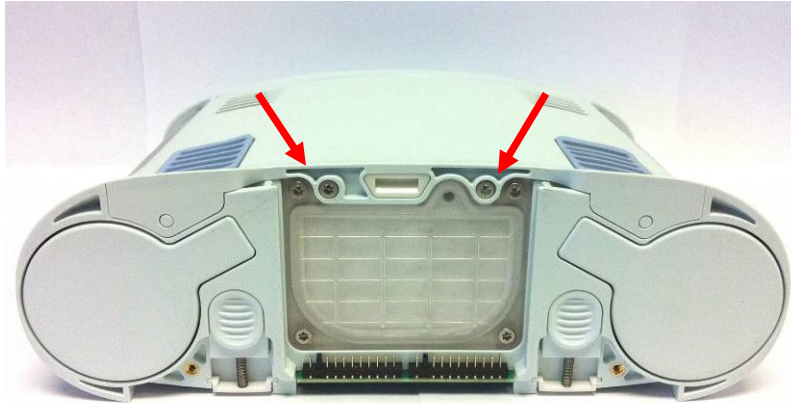


Figure 2: Location of screws

3. With the concentrator still on its back side, slide the front housing down and away from the device then lift up to remove.

### Instructions for Removing the Compressor:

1. Locate and remove the two screws that connect the tube bracket to the chassis (Figure 3). Remove the tube bracket and set aside.

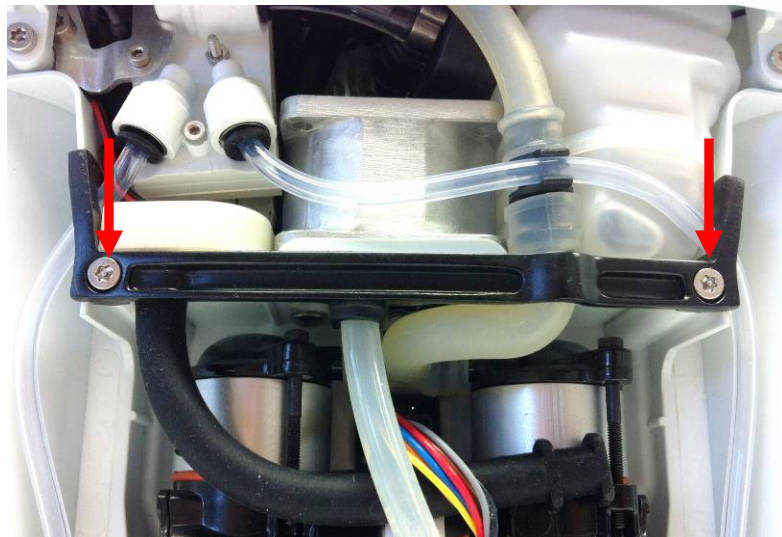


Figure 3: Tube bracket screws

2. Remove the four screws attaching the filter box lid to the filter body (Figure 4) and remove the filter box lid using a flathead screwdriver to separate it from the filter body, if necessary.

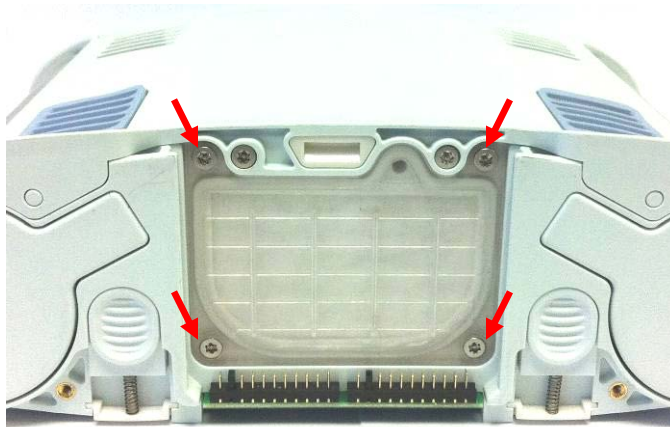


Figure 4: Filter box lid screws

3. Locate and remove the two screws connecting the compressor feet to the filter body with a 1/8" hex driver (Figure 5).

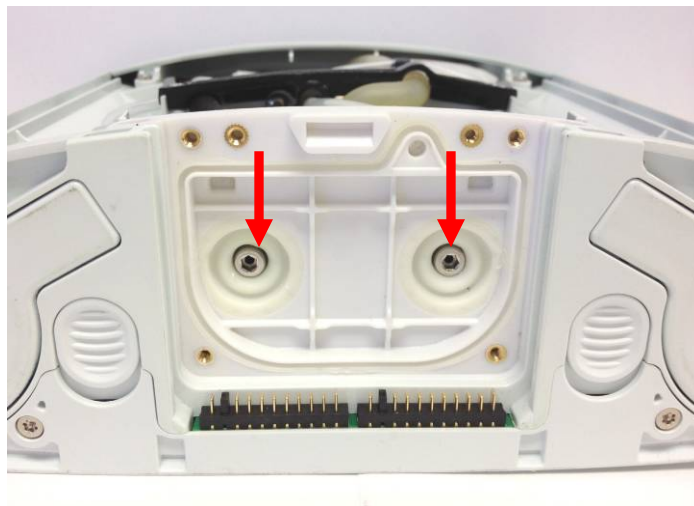


Figure 5: Compressor screws

4. Unscrew the screw and washer connecting the dual feed tube to the chassis (Figure 6).



Figure 6: Dual feed tube screw and washer

5. Unplug the dual feed tube from the black inlet union using a flathead screwdriver, if necessary (Figure 7).

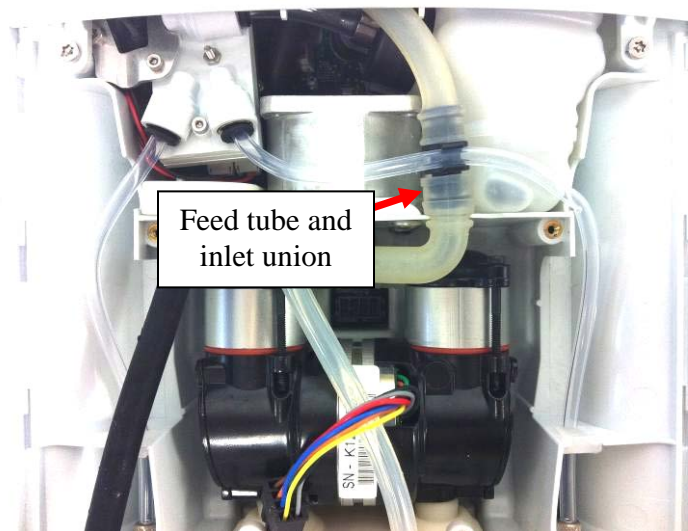


Figure 7: Unplug dual feed tube

6. Remove the compressor cable from the motherboard using pliers to press down on the release clip while pulling the connector housing away from the device (Figure 8). *Do not pull on the compressor wires.*

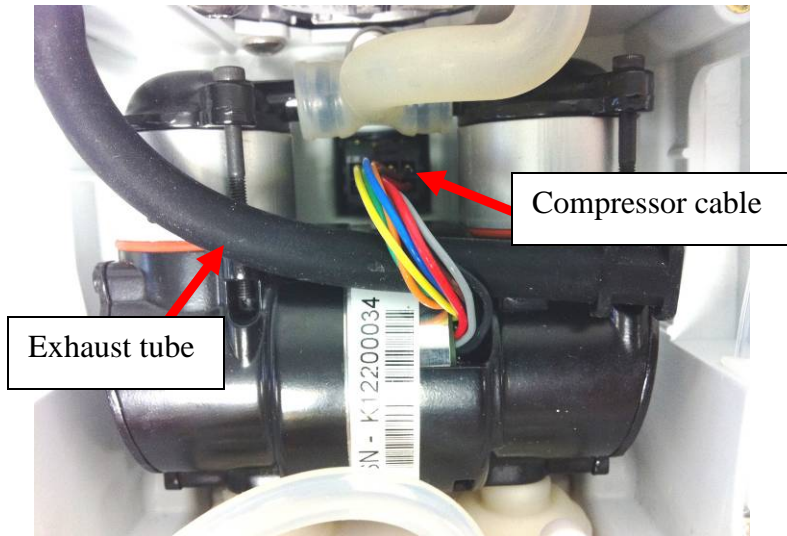


Figure 8: Compressor components

7. Remove the loose end of the black exhaust tube from the compressor cable loop (Figure 8).
8. Gently lift the compressor away from the device and remove the compressor.

### Instructions for Replacing the Compressor:

1. Place the new compressor in the space in the chassis and align the compressor feet with the molded mounts on the filter body (Figure 9). Reinstall the two screws that connect the compressor to the filter body, lightly tightening by hand (Figure 5).



Figure 9: Properly installed compressor

2. Replace the filter box lid and secure the four screws that connect it to the filter body (Figure 4). Tighten screws to 6 in-lbs.
3. Re-attach the dual feed tube to the black inlet union, making sure the tube is fully secured (Figure 7).
4. Reinstall the screw and washer that attach the other end of the dual feed tube to the chassis, tightening the screw just enough to connect the tube to the chassis (Figure 6). *Over tightening this screw will damage the compressor outlet tube.*

5. Plug in the compressor cable (Figure 8). Double check that the cable housing is locked into the receptacle.
6. Place the black exhaust tube back through the compressor cable loop (Figure 8).
7. With all cables and tubing reattached, make sure all tubes are properly oriented in their respected positions on the chassis before reinstalling the tube bracket. Reinstall the two screws (Figure 3). Tighten screws to 6 in-lbs.

### **Instructions for Replacing the Housing:**

1. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 11) then push down and toward the device to secure the housing in the chassis.



Figure 11: Housing feet and corresponding chassis grooves

2. Replace the two screws that connect the front housing to the chassis (Figure 2). Tighten screws to 6 in-lbs.
3. Return the concentrator to the upright position
4. Slide the battery back into the chassis. Ensure the battery clip is fully seated



## SP-510 Inogen One G3 Power Cable Replacement

### Parts Required:

1. SP-510, Cable, Input, 2 Wire

### Tools Required:

1. T10 Torx Driver



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel operation.

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).

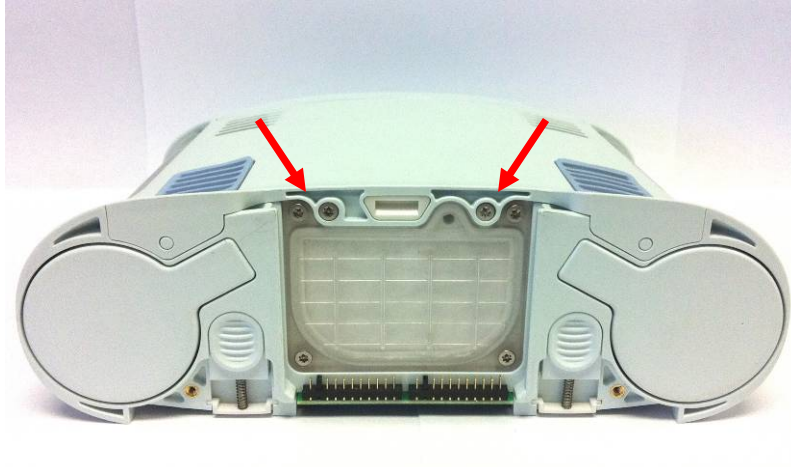


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.
6. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 5 and 6).

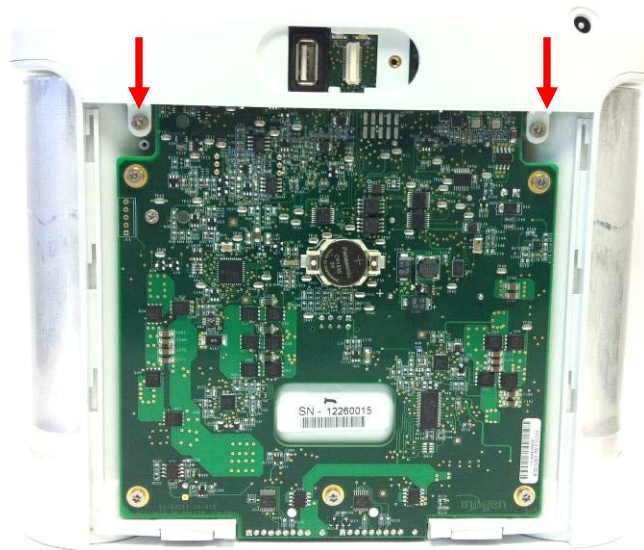


Figure 5: Location of rear screws

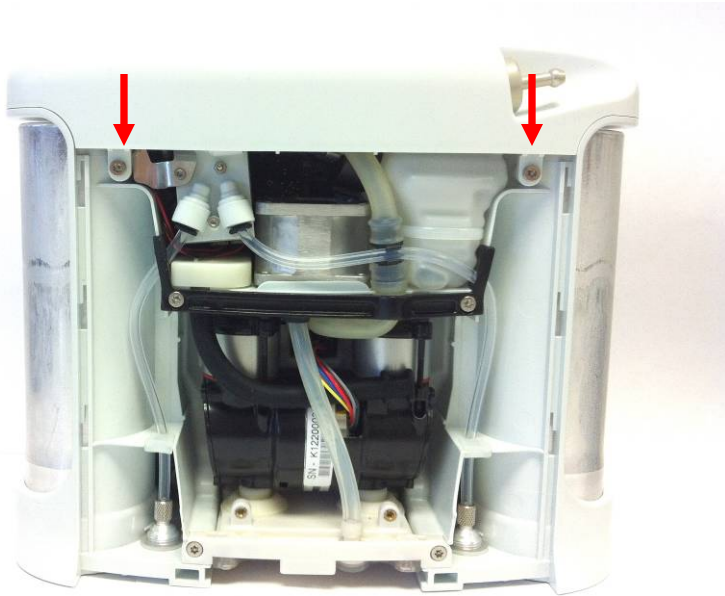


Figure 6: Location of front screws

7. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 7).

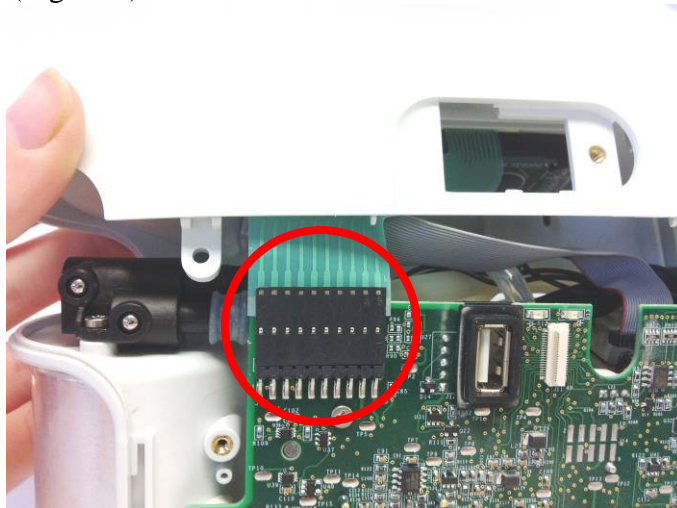


Figure 7: Unplug UIP cable from motherboard

8. Gently unplug the cannula tube from the user interface panel and the LCD cable from the motherboard (Figure 8) and set the user interface panel aside.



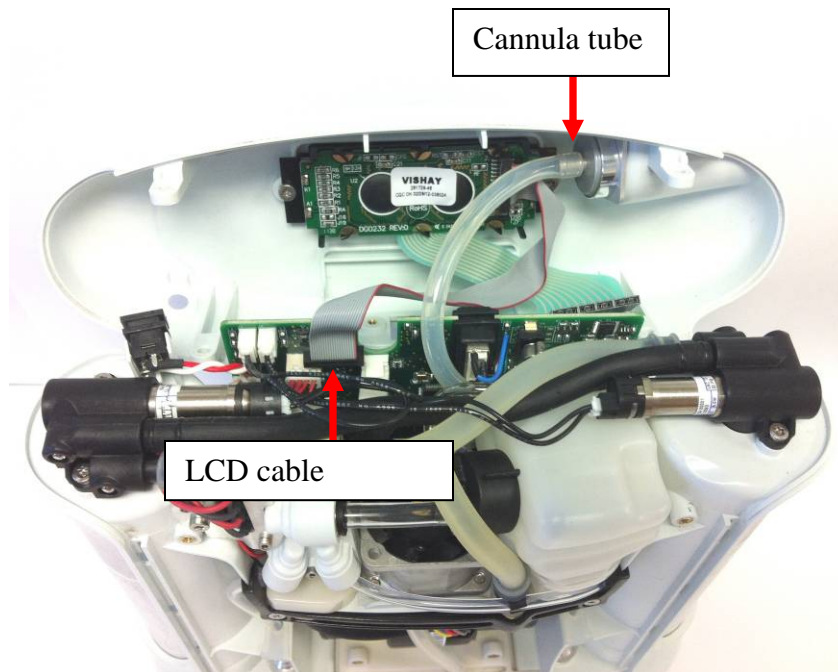


Figure 8: Remove cannula tube and LCD cable

### Instructions for Replacing the Power Cable:

1. Locate and disconnect the power cable from the connector on the motherboard (Figure 9). Remove the power cable.

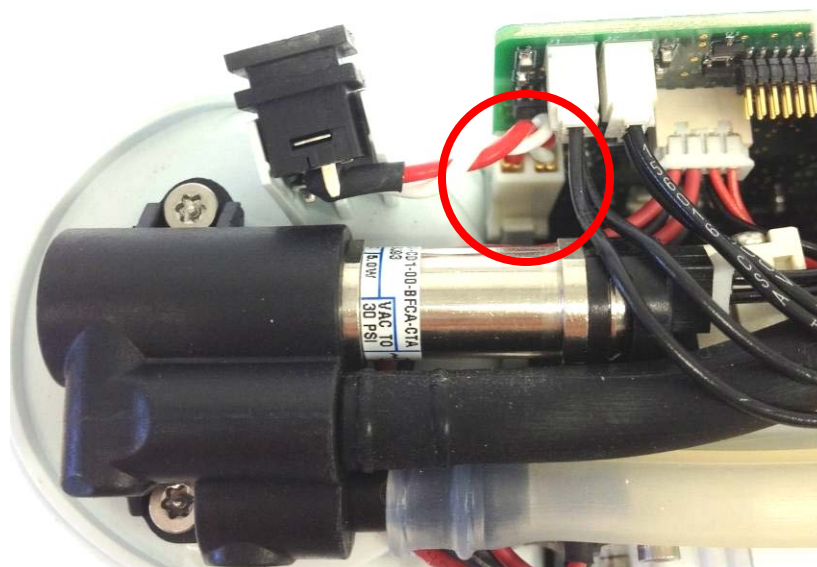


Figure 9: Power cable connector

2. Install the new power cable by connecting it to the motherboard and aligning the power plug in its designated position on the chassis (Figure 10).



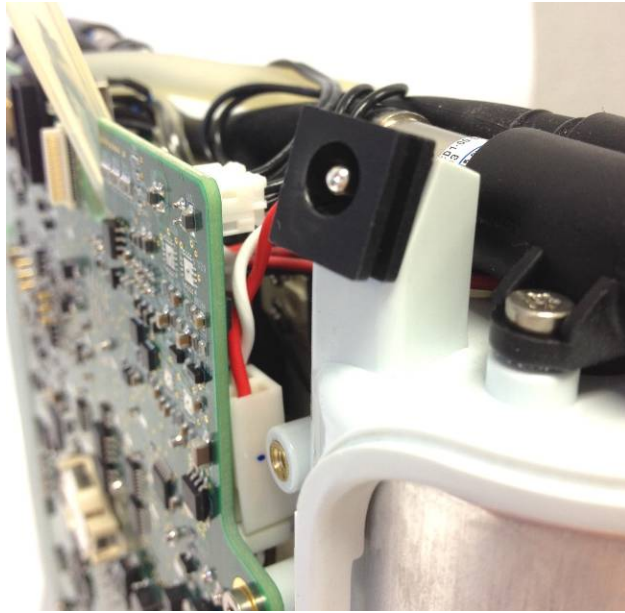


Figure 10: Properly installed power cable

### Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 8). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 7).
3. Test the function of each button and the LCD. If anything does not work, reseat the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 11) then push down and toward the device to secure the housing in the chassis.



Figure 11: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

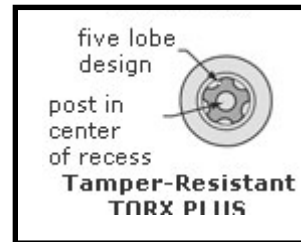
## SP-511 Inogen One G3 Product Manifold Replacement

### Parts Required:

1. SP-511, Assembly, Product Manifold

### Tools Required:

1. T10 Torx Driver
2. Small Flathead Screw Driver
3. Pliers



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.
4. The barbs on the accumulator cap are delicate and can easily be broken during removal or installation of the tubing.

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).

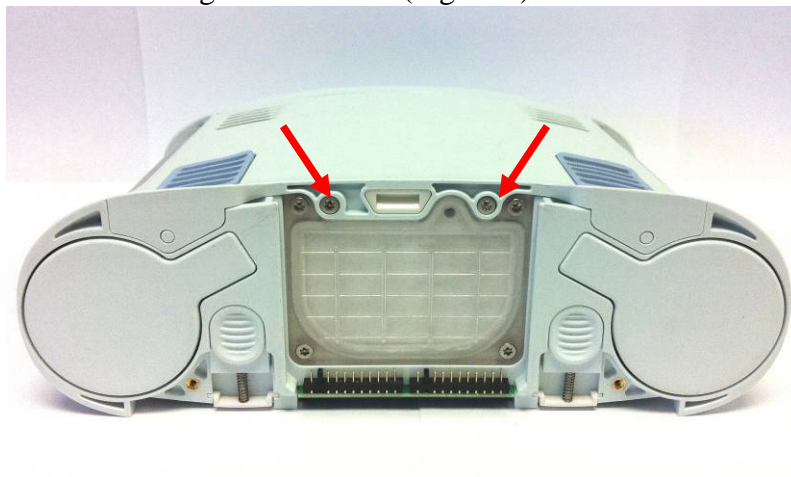


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.
6. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 5 and 6).



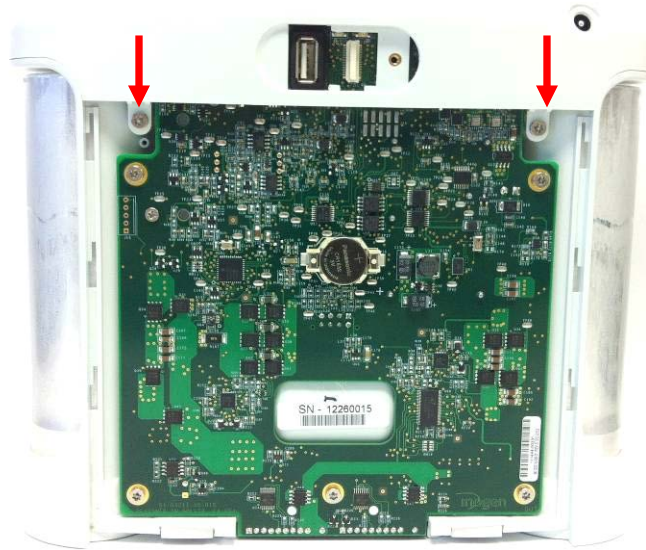


Figure 5: Location of rear screws

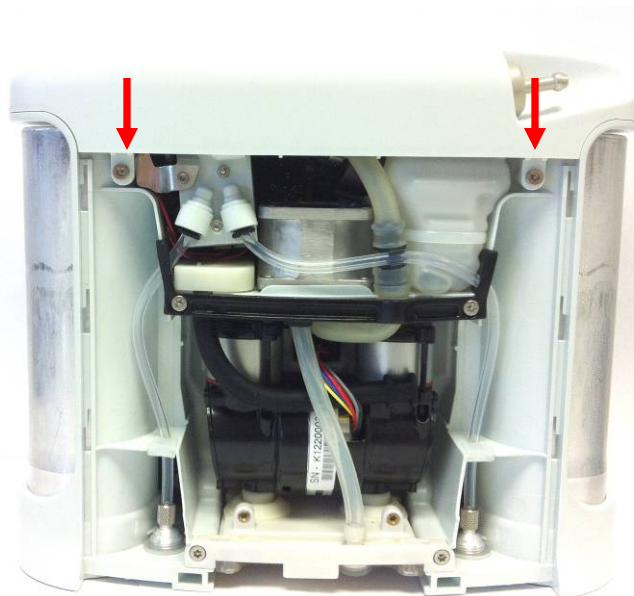


Figure 6: Location of front screws

7. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 7).

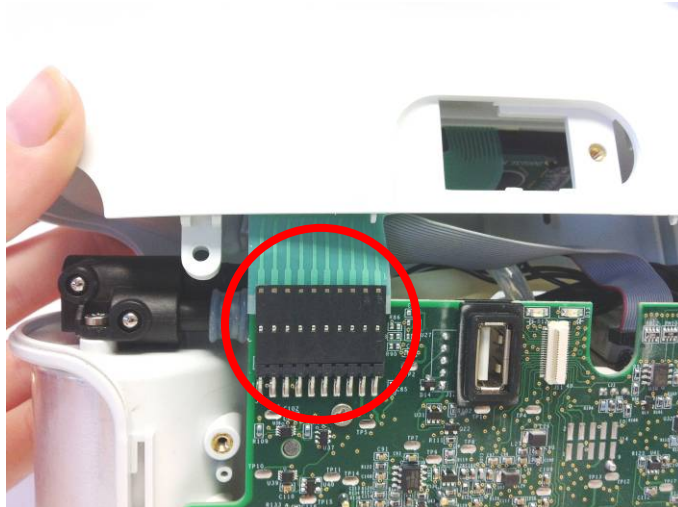


Figure 7: Unplug UIP cable from motherboard

8. Gently unplug the cannula tube from the user interface panel and the LCD cable from the motherboard (Figure 8). Set the user interface panel aside

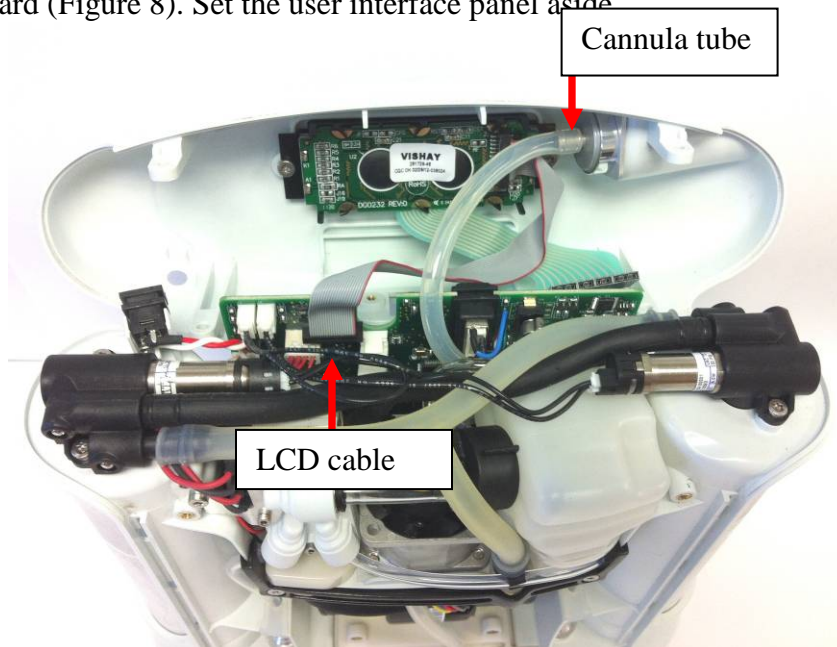


Figure 8: Remove cannula tube and power cable

### Instructions for Removing the Product Manifold:

1. Remove the screw securing the manifold bracket to the chassis (Figure 9).

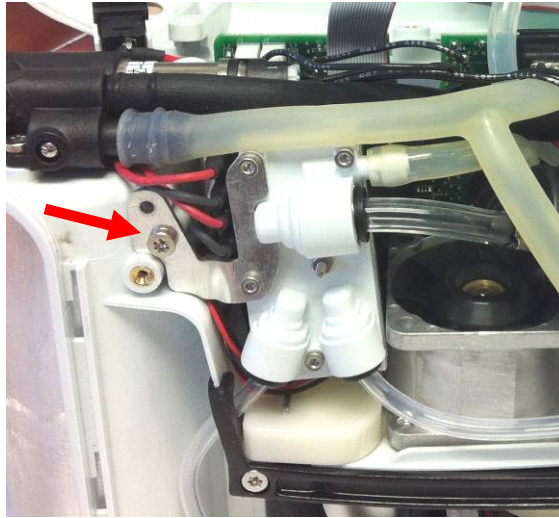


Figure 9: Manifold bracket screw

2. Carefully disconnect the product manifold cable from the motherboard using pliers to pull the white connector off of the pins and away from the motherboard (Figure 10).

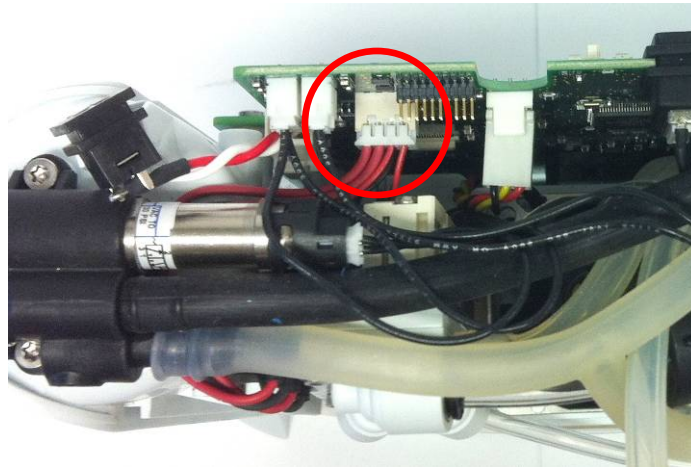


Figure 10: Product manifold motherboard cable

3. Locate the four tubes connected to the product manifold (Figure 11). One tube, the oxygen sensor tube, is connected to the manifold by a barb and can be removed using a small flathead screw driver to slide the tubing off of the barb. The other three tubes are connected by quick connect fittings and can be removed by pressing inward on the retaining ring while pulling gently on the tubing. It is recommended that the bottom two tubes, the receptacle tubes, be removed first, so that the manifold can be pulled away from the chassis to allow more room to remove the remaining accumulator tubing as the barbs on the accumulator cap are very delicate and can easily be broken during removal of the tubing.

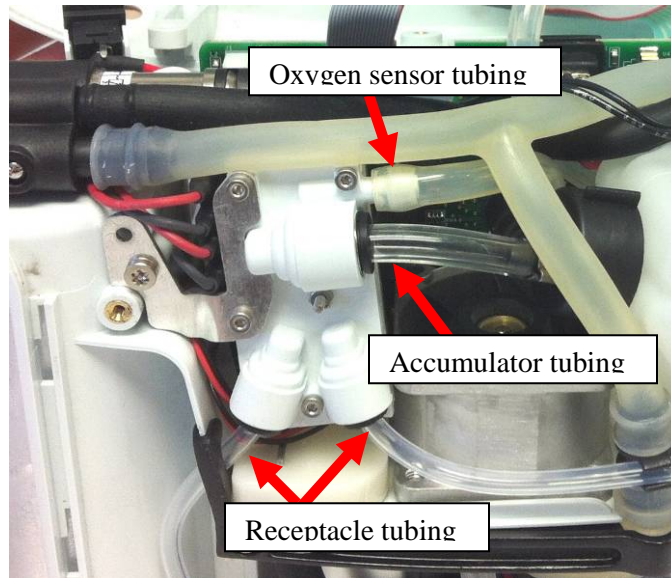


Figure 11: Product manifold tubing

4. With all tubing and cables disconnected, remove the product manifold.

### Instructions for Replacing the Product Manifold:

1. Place the new product manifold in its place. Make sure the motherboard cables are oriented behind the manifold, facing the motherboard.
2. Reinstall all four tubes, starting with the accumulator tubing. Pull on the tubing to ensure the tubes have been correctly inserted into the manifold and do not pull out of the connectors.
3. Reconnect the manifold cable to the motherboard, making sure to orient the connector with the thicker cables on the left (Figure 12). Assure proper connection of the pins.

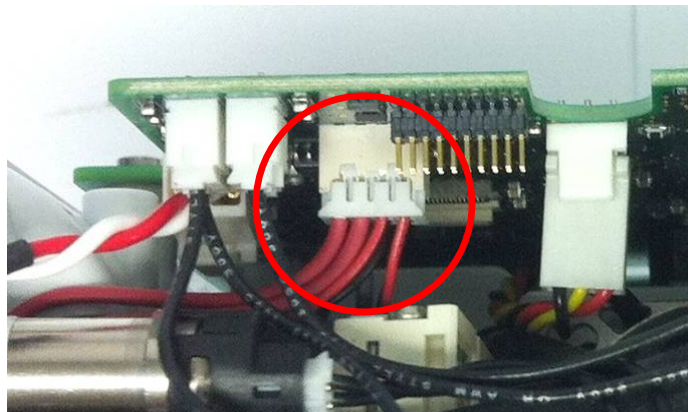


Figure 12: Orientation of product manifold cable

4. Replace the screw that connects the manifold bracket to the chassis (Figure 9). Tighten screw to 6 in-lbs.



## Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 8). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 7).
3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 13) then push down and toward the device to secure the housing in the chassis.



Figure 13: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.



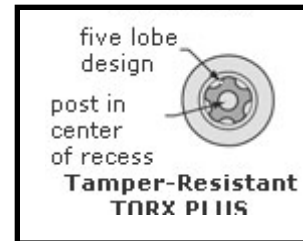
## SP-512 Inogen One G3 Feed Waste Manifold Replacement

### Parts Required:

1. SP-512, Manifold, Feed/Waste

### Tools Required:

1. T10 Torx Driver
2. Small Flathead Screw Driver



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).

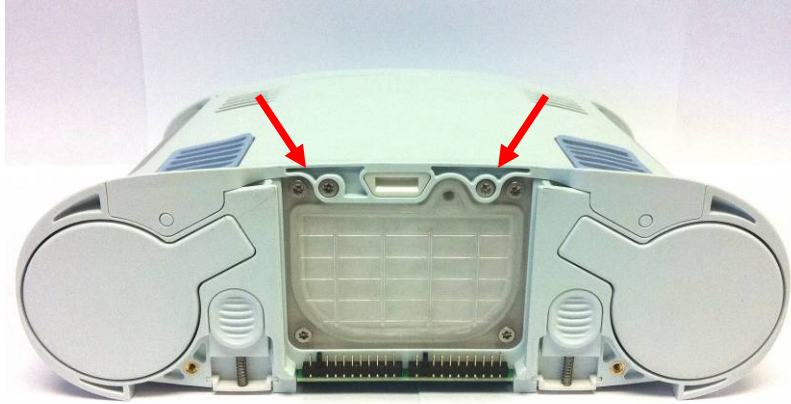


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.
6. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 5 and 6).

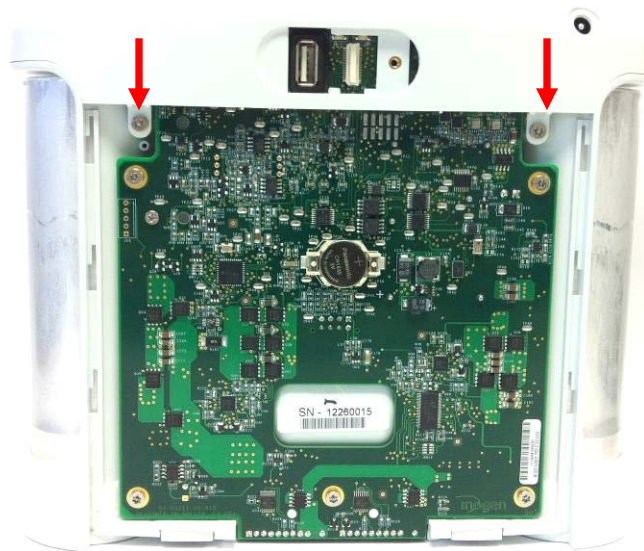


Figure 5: Location of rear screws

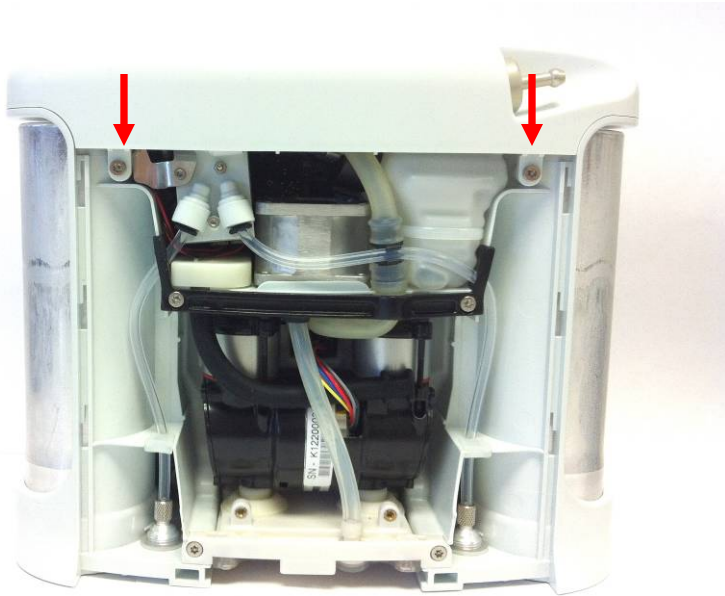


Figure 6: Location of front screws

7. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 7).

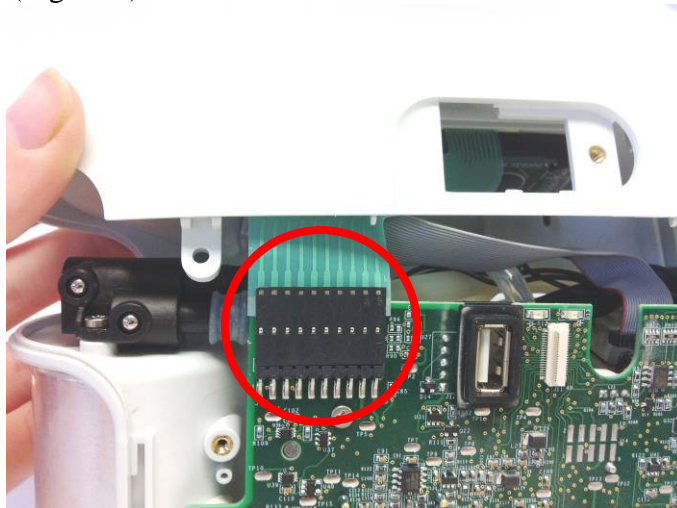


Figure 7: Unplug UIP cable from motherboard

8. Gently unplug the cannula tube from the user interface panel and the LCD cable from the motherboard (Figure 8) and set the user interface panel aside.



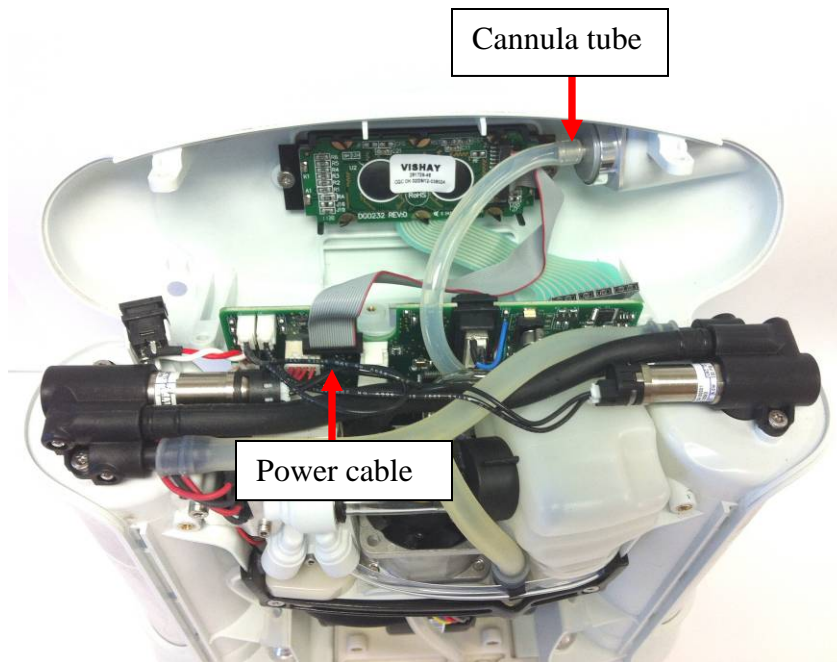


Figure 8: Remove cannula tube and LCD cable

### Instructions for Removing the Feed Waste Manifold:

1. Locate the manifold cable corresponding to the manifold being replaced and disconnect this cable from the motherboard (Figure 9).

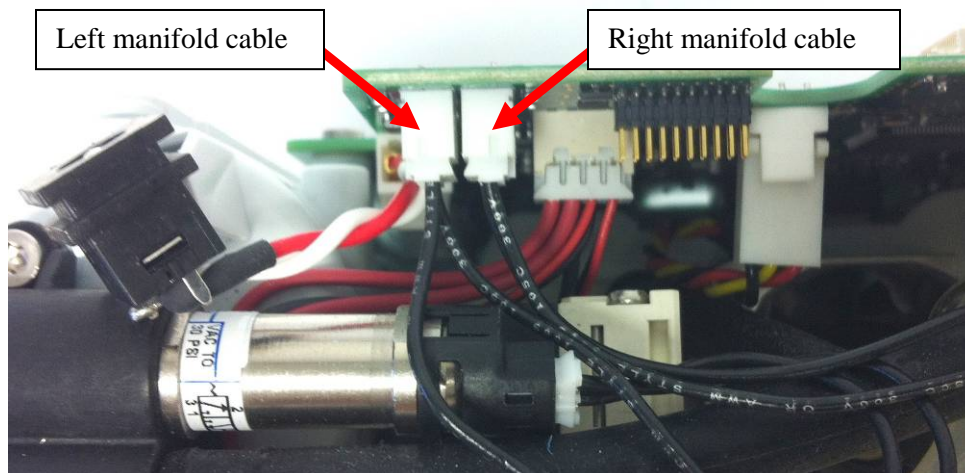


Figure 9: Feed waste manifold cables

2. Remove the black exhaust T tube and the clear intake T tube from the manifold using a small flathead screw driver, if necessary (Figure).



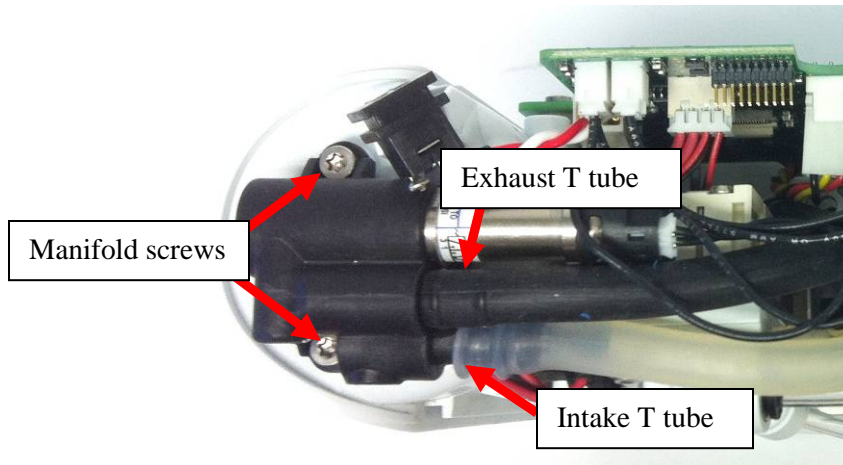


Figure 10: Tubing and screws attached to feed waste manifold

3. Unscrew the two screws connecting the manifold to the chassis (Figure 10) and remove the manifold.

### Instructions for Replacing the Feed Waste Manifold:

1. Install the new manifold onto the chassis with the same orientation and replace the two screws to secure it to the chassis (Figure 10). Tighten screws to 6 in-lbs.
2. Secure the open ends of the exhaust T tube and the intake T tube onto the new manifold as shown in Figure 10. Make sure both tubes pushed onto the barbs as far as possible.
3. Connect the manifold cable to the motherboard and make sure the connector is fully seated on the pins (Figure 9).
4. Repeat procedure if both feed waste manifolds are to be replaced.

### Instructions for Replacing the Housing:

1. With the new feed waste manifold(s) fully installed, the user interface panel can now be replaced. Plug the LCD cable back into the motherboard (Figure 8). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 7).
3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 11) then push down and toward the device to secure the housing in the chassis.



Figure 11: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

## SP-513 Inogen One G3 Accumulator Replacement

### Parts Required:

1. SP-513, Assembly, Accumulator

### Tools Required:

1. T10 Torx Driver
2. Scissors



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.
4. The barbs on the accumulator cap are delicate and can easily be broken during removal or installation of the tubing.

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).



Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.
6. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 5 and 6).

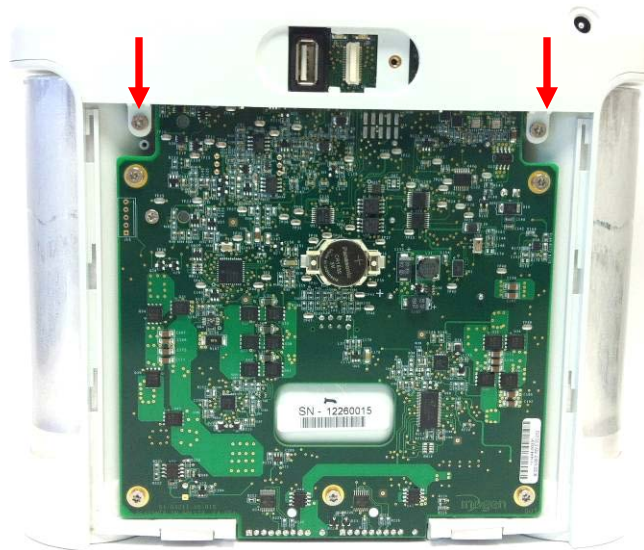


Figure 5: Location of rear screws



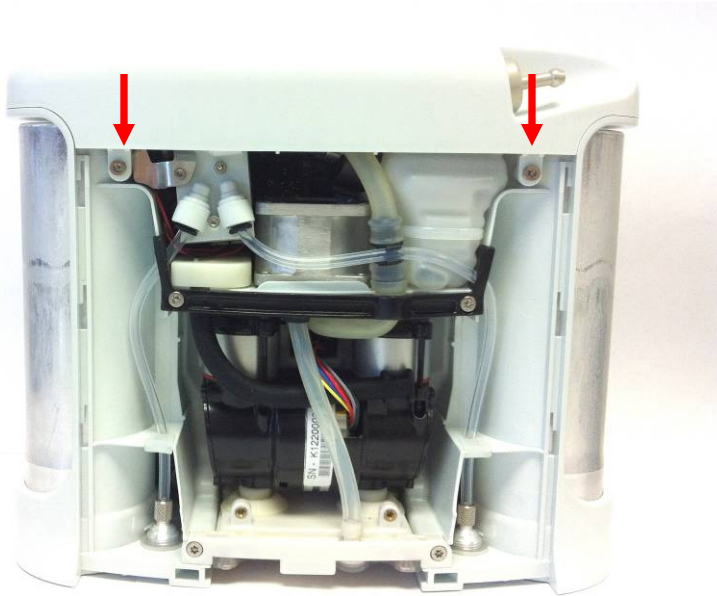


Figure 6: Location of front screws

7. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 7).

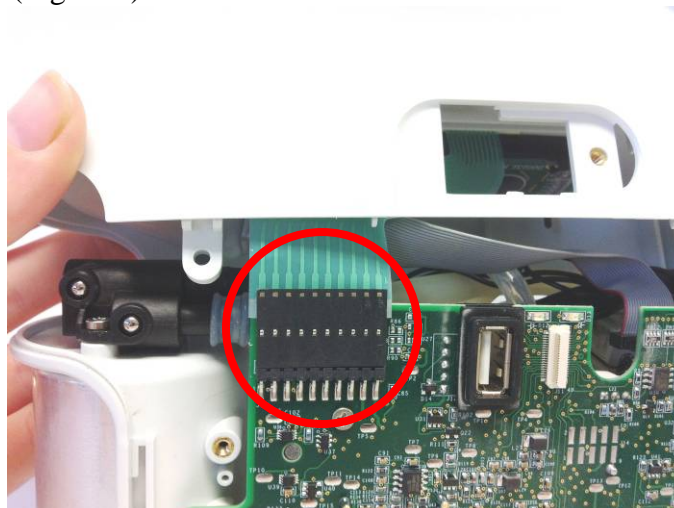


Figure 7: Unplug UIP cable from motherboard

8. Gently unplug the cannula tube from the user interface panel and the power cable from the motherboard (Figure 8) and set the user interface panel aside.

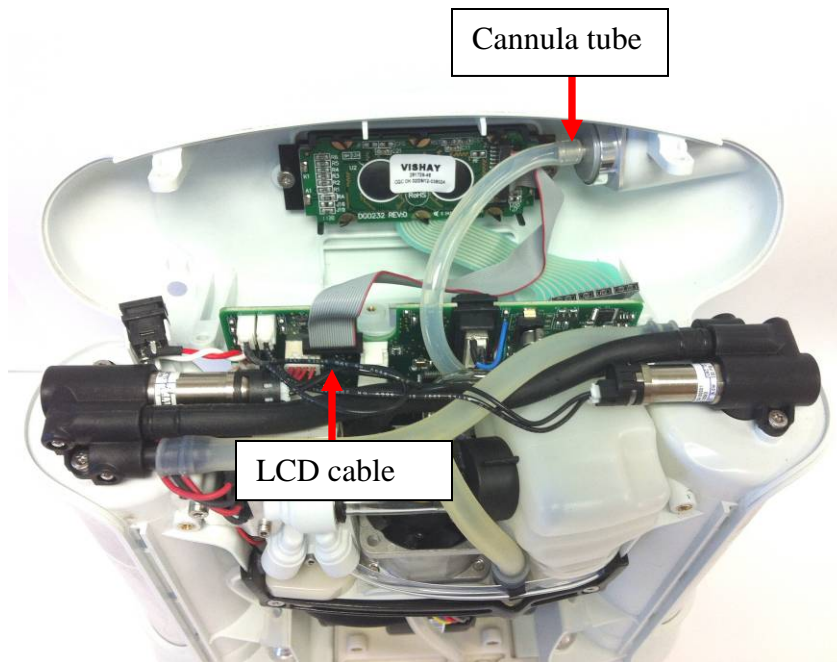


Figure 8: Remove cannula tube and LCD cable

### Instructions for Removing the Accumulator:

1. Cut the zip-tie securing the accumulator to the chassis (Figure 9).
2. Disconnect the tube bracket from the chassis by unscrewing the two screws and setting aside (Figure 9). This frees the tubes surrounding the accumulator and makes more room for removal.

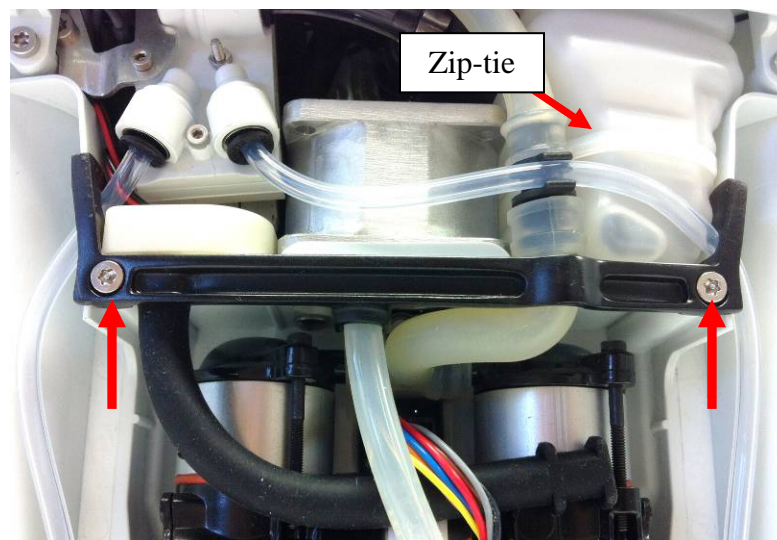


Figure 9: Tube bracket screws

3. Locate the two tubes attached to the accumulator cap. The tube nearest the motherboard can be released from its quick connect on the accumulator cap by pushing down on the retaining ring while pulling gently on the tubing. Pull the accumulator away from the chassis slightly to make room to remove the other tube. This tube can be disconnected from its quick connect on the product manifold (Figure 10).



Figure 10: Accumulator tubing for removal

4. Remove the accumulator from the device.

### Instructions for Replacing the Accumulator:

1. Before installing the new accumulator, string a new zip tie through the loop in the chassis as shown in figure 11.

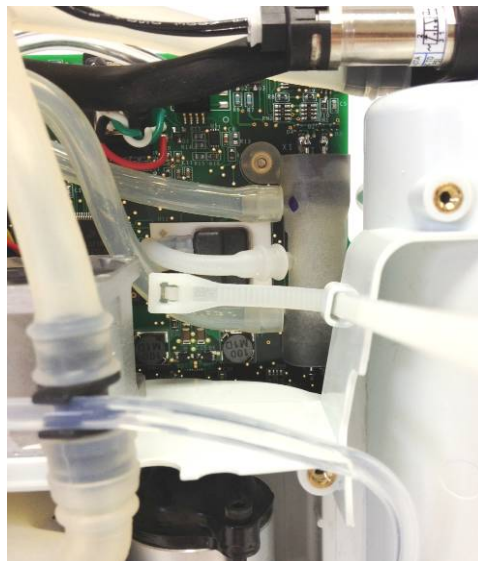


Figure 11: Zip tie properly oriented in chassis

2. Plug the tubing on the new accumulator into its quick connect on the product manifold (Figure 10). Place the new accumulator in its designated space and tighten the zip tie around the accumulator so that the end of the zip tie is nearest the oxygen sensor tube away from the breath detect sensor. Cut off the excess zip tie (Figure 12).

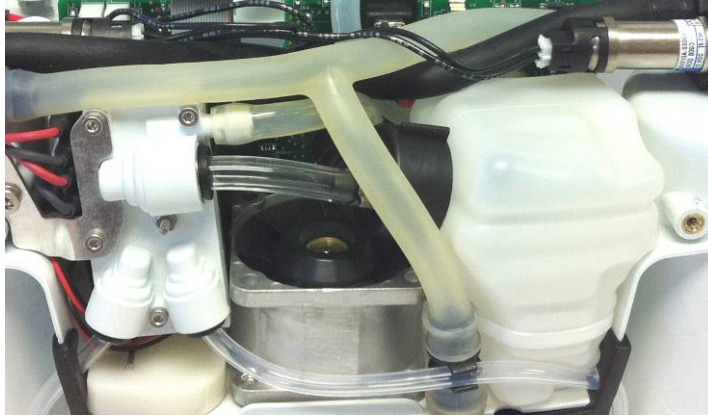


Figure 12: Properly installed accumulator

3. Plug the smaller motherboard tube back into its quick connect on the accumulator cap.
4. Make sure all tubes are properly oriented before reinstalling the tube bracket and the two screws that attach it to the chassis (Figure 9). Tighten screws to 6 in-lbs.

### Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 8). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 7).
3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 13) then push down and toward the device to secure the housing in the chassis.



Figure 13: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.



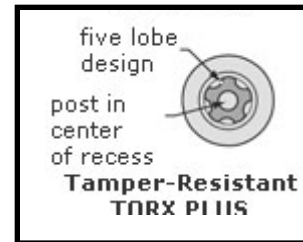
# SP-514 Inogen One G3 Breath Detect Sensor Replacement

## Parts Required:

1. SP-514, Breath Detect Sensor

## Tools Required:

1. T10 Torx Driver
2. Small Flathead Screw Driver
3. Pliers



## Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

## Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).

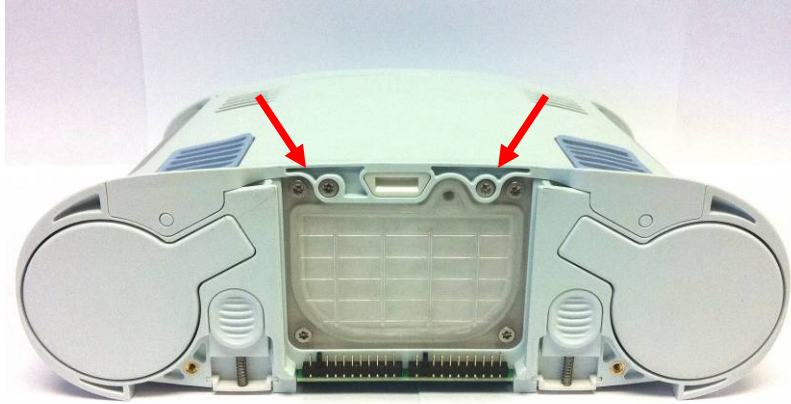


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.
6. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 5 and 6).

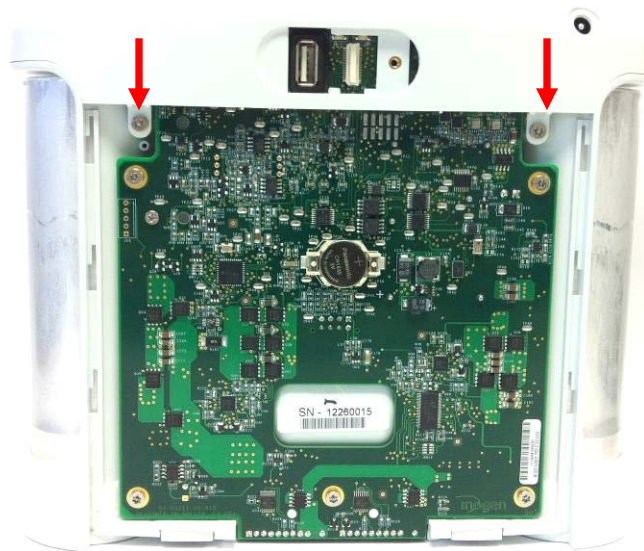


Figure 5: Location of rear screws

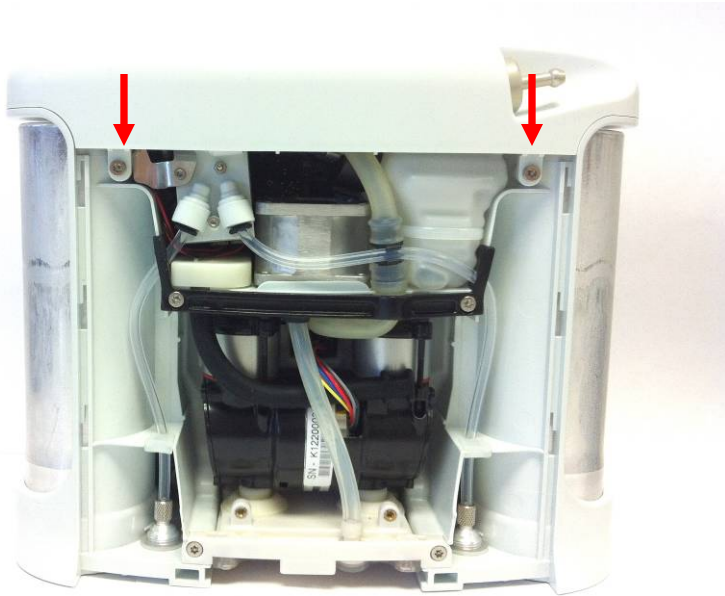


Figure 6: Location of front screws

7. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 7).

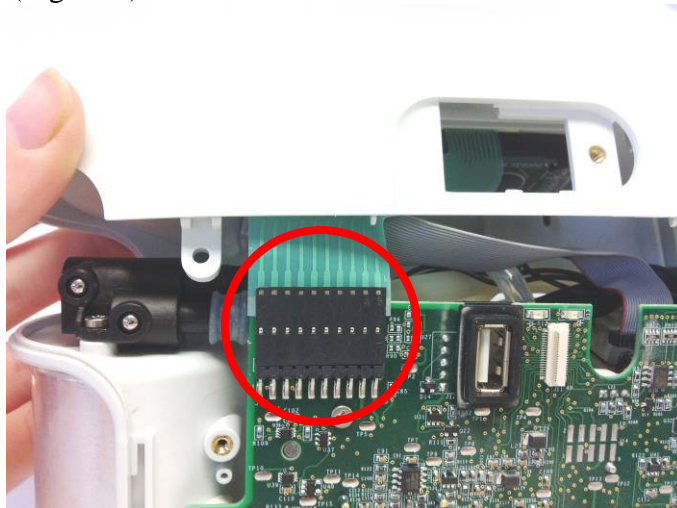


Figure 7: Unplug UIP cable from motherboard

8. Gently unplug the cannula tube from the user interface panel and the LCD cable from the motherboard (Figure 8) and set the user interface panel aside.



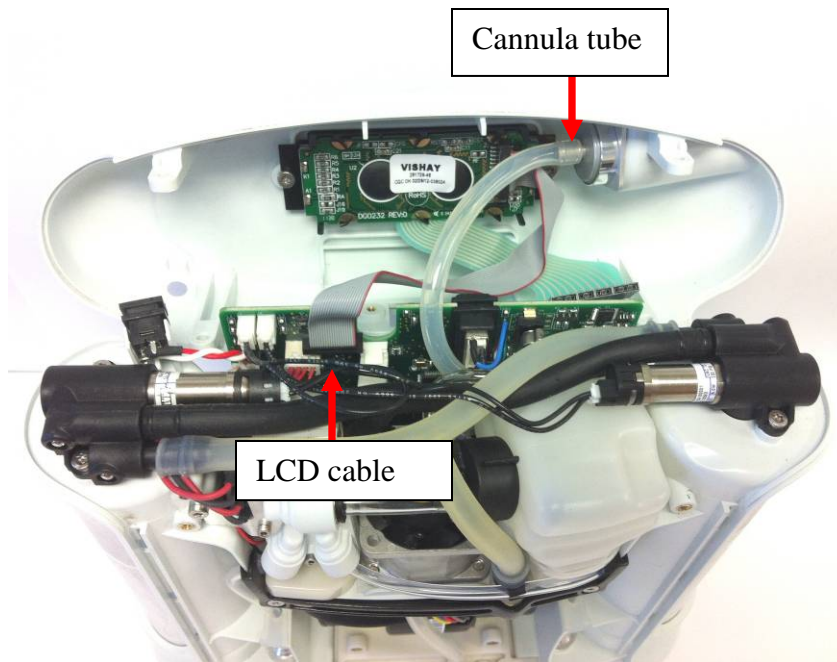


Figure 8: Remove cannula tube and LCD cable

### Instructions for Removing the Breath Detect:

1. To gain access to the breath detect, the motherboard must be removed. Locate the compressor cable. Detach the compressor cable from the motherboard using long pliers to press down on the release clip while pulling on the wire connector (Figure 9). *Do not pull on the compressor wires.*

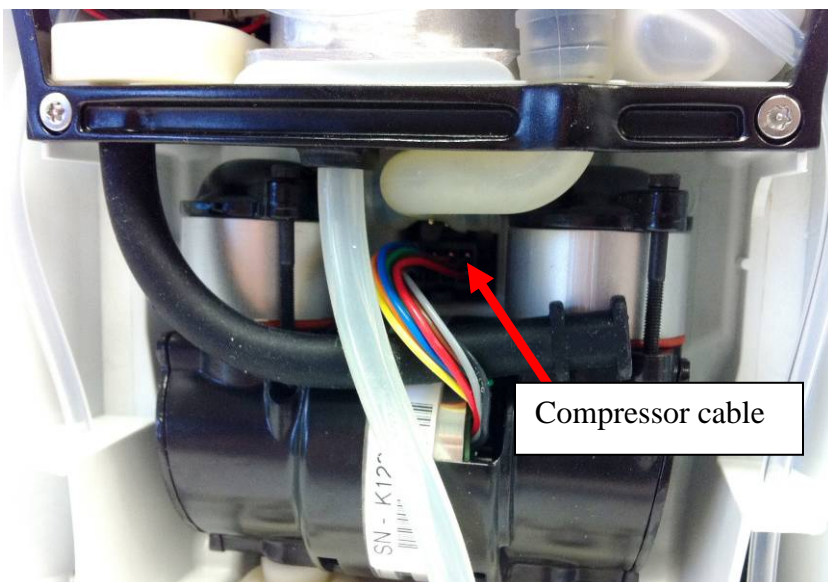


Figure 9: Detach compressor cable from motherboard

2. Unscrew the five screws that attach the motherboard to the chassis on the back side of the device (Figure 10).



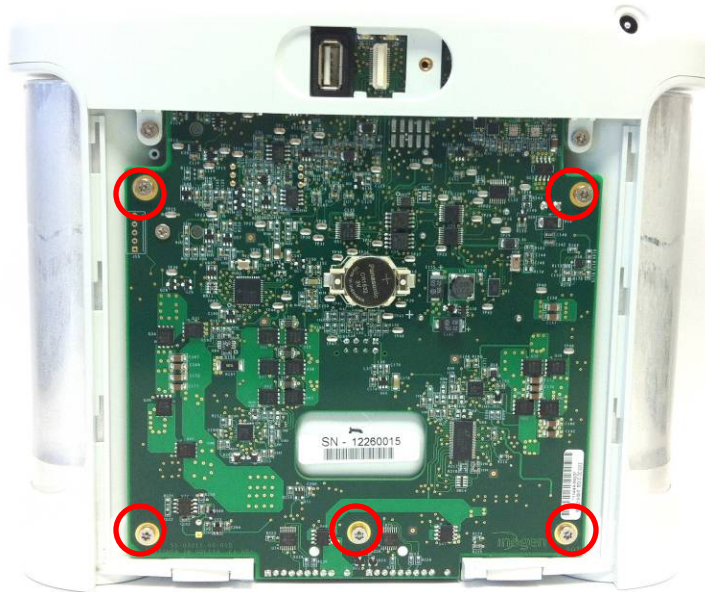


Figure 10: Screws to be removed from motherboard

3. Carefully pull the motherboard about a half inch away from the device, making sure not to bend it in any way. With the cables and tubing exposed, gently unplug the two feed waste manifold cables, the product manifold cable, and the fan cable from the motherboard (Figure 11).

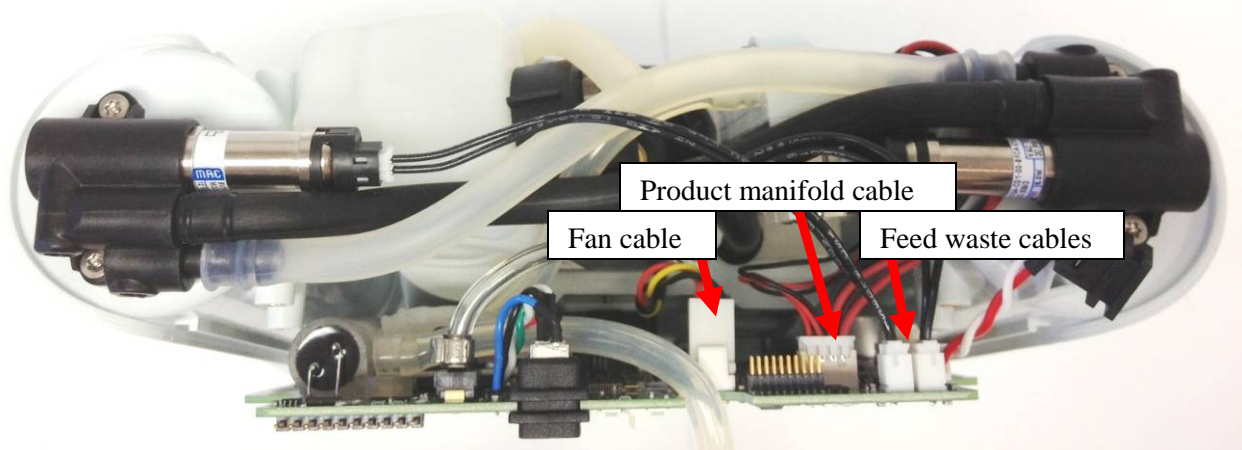


Figure 11: Disconnect all cables that connect device to motherboard

4. Unplug the oxygen sensor tubing from the product manifold by pulling the tube off of the barb. Also unplug the accumulator tubing from the accumulator cap by pushing down on the retaining ring of the quick connect while pulling gently on the tubing (Figure 12). *If the tube is pulled out too far the pressure sensor can break free from the motherboard.*

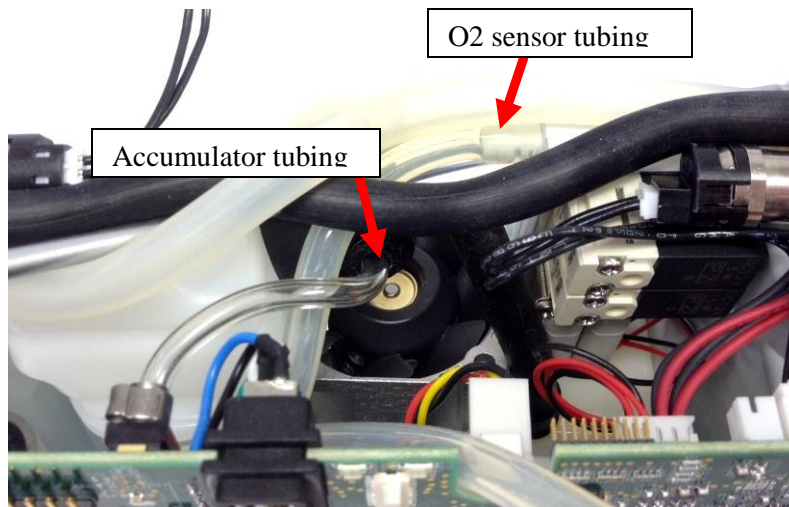


Figure 12: Disconnect all tubes that connect to the motherboard

5. With all cables and tubing detached, remove the motherboard from the device and set face up.
6. Locate the breath detect on the motherboard and unplug its tubing from the oxygen sensor by pulling the tube off of the barb (Figure 13).

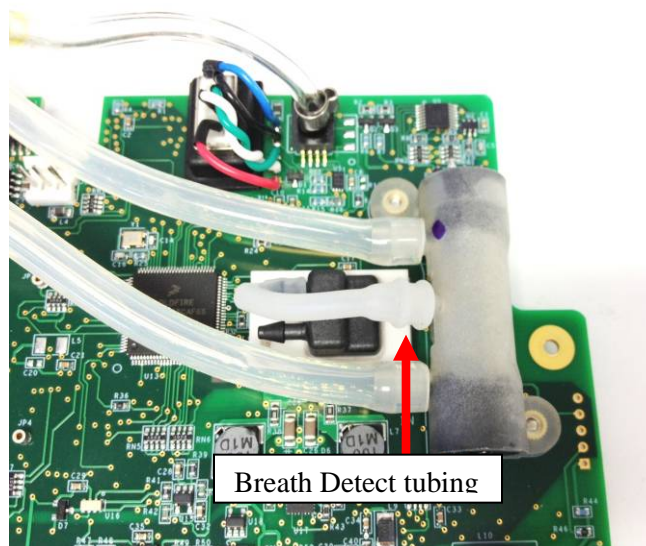


Figure 13: Disconnect tubing from oxygen sensor

7. Carefully pull the breath detect off of the motherboard by lifting the white board straight up.

### Instructions for Replacing the Breath Detect:

1. Install the new breath detect by aligning the 6 pins on the bottom of the breath detect with the corresponding holes on the motherboard (Figure 14). Make sure the pins are fully seated in the holes and the breath detect is lying flat on the motherboard (Figure 15).



Figure 14: Pins aligned with motherboard holes



Figure 15: Fully seated breath detect

2. Plug the breath detect tubing onto the barb on the oxygen sensor (Figure 13).
3. To re-install the motherboard, make sure the screw holes are aligned with those on the chassis before reattaching the accumulator tubing and the oxygen sensor tubing (Figure 12). Make sure the oxygen sensor tube is oriented under the two T tubes. Next, reattach the feed waste manifold cables, the product manifold cable, and the fan cable (Figure 11). Gently pull on each tube/cable to ensure a complete connection.
4. Reinstall the five screws that attach the motherboard to the chassis (Figure 10). Tighten screws to 6 in-lbs.
5. Plug the compressor cable back into the motherboard (Figure 9).

### Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 8). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 7).
3. Test the function of each button and the LCD. If anything does not work, reseat the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 16) then push down and toward the device to secure the housing in the chassis.



Figure 16: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

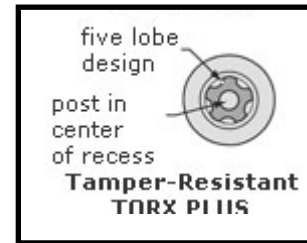
## SP-515 Inogen One G3 Motherboard Replacement

### Parts Required:

1. SP-515, Motherboard

### Tools Required:

1. T10 Torx Driver
2. Small Flathead Screw Driver
3. Pliers



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).





Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).

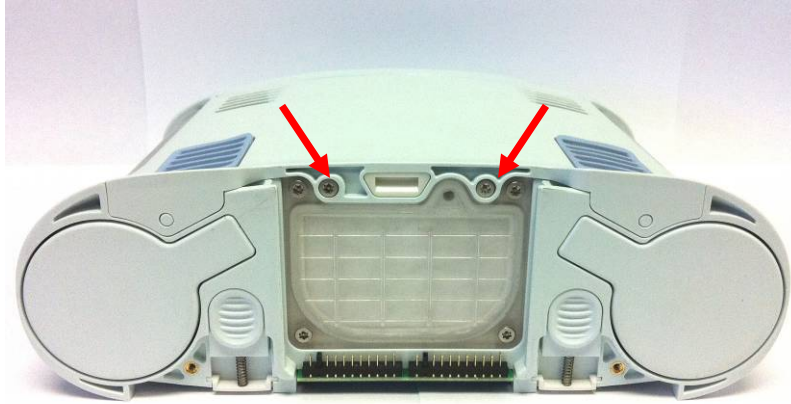


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.
6. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 5 and 6).

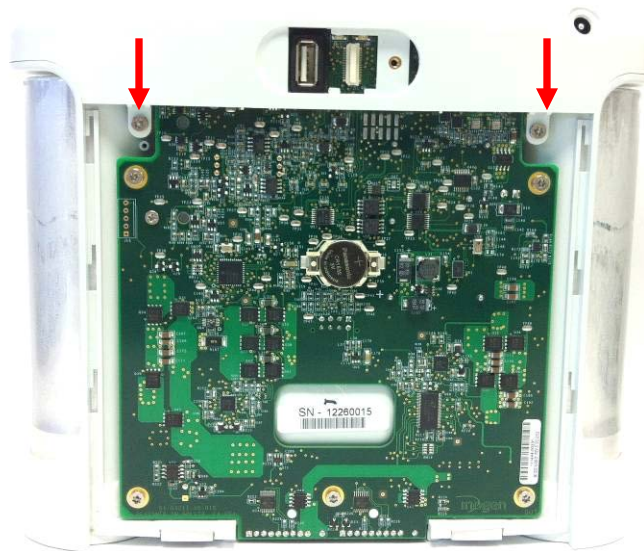


Figure 5: Location of rear screws

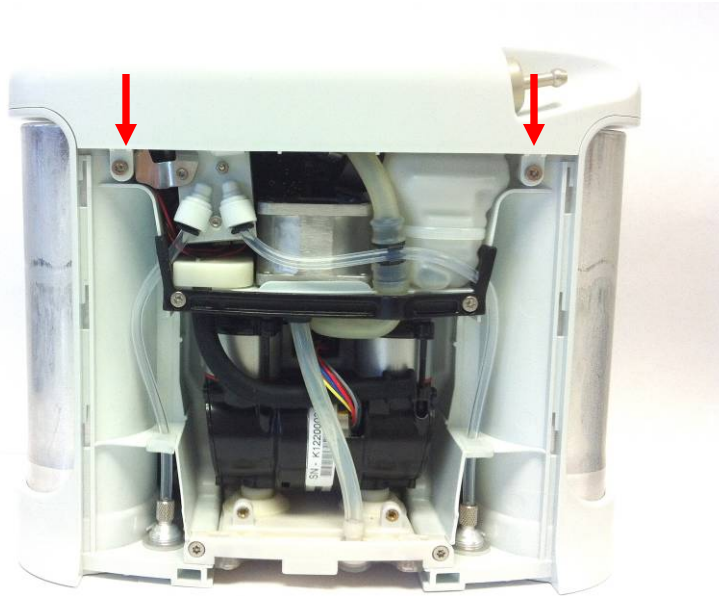


Figure 6: Location of front screws

7. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 7).

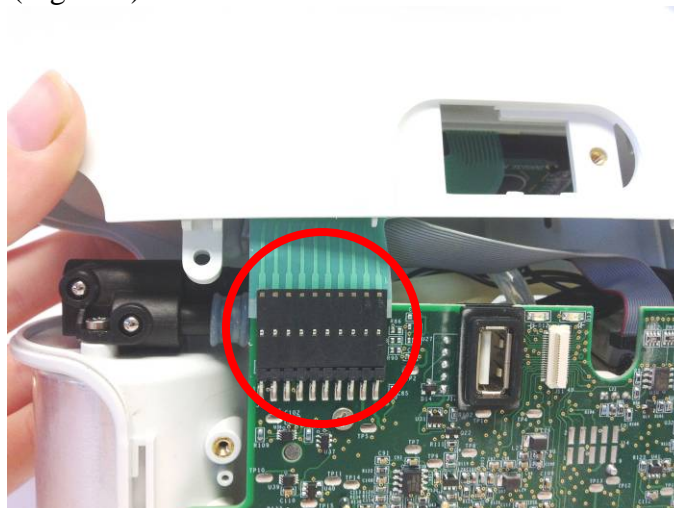


Figure 7: Unplug UIP cable from motherboard

8. Gently unplug the cannula tube from the user interface panel and the power cable from the motherboard (Figure 8) and set the user interface panel aside.

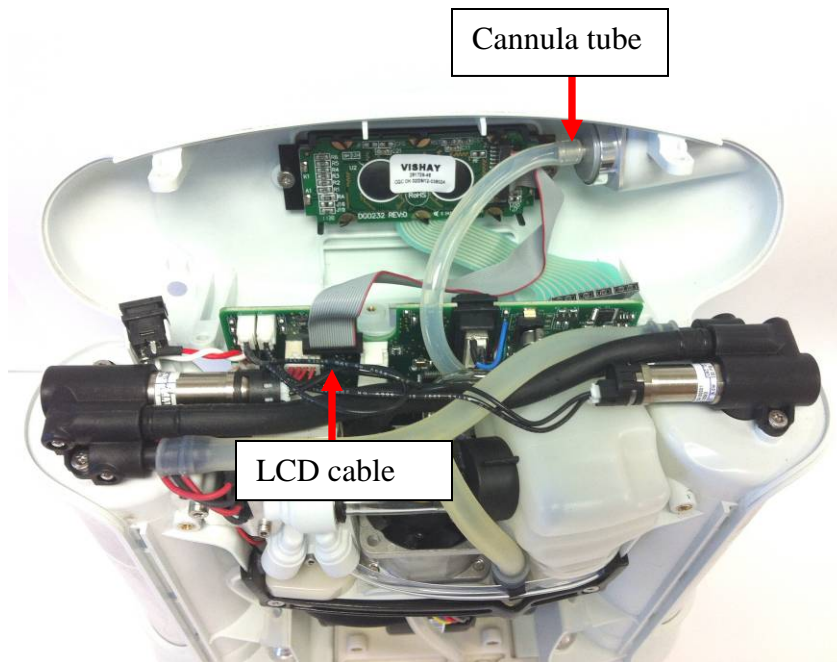


Figure 8: Remove cannula tube and LCD cable

### Instructions for Removing the Motherboard:

1. Locate the compressor cable. Detach the compressor cable from the motherboard using long pliers to press down on the release clip while pulling the connector housing (Figure 9). *Do not pull on the compressor wires.*

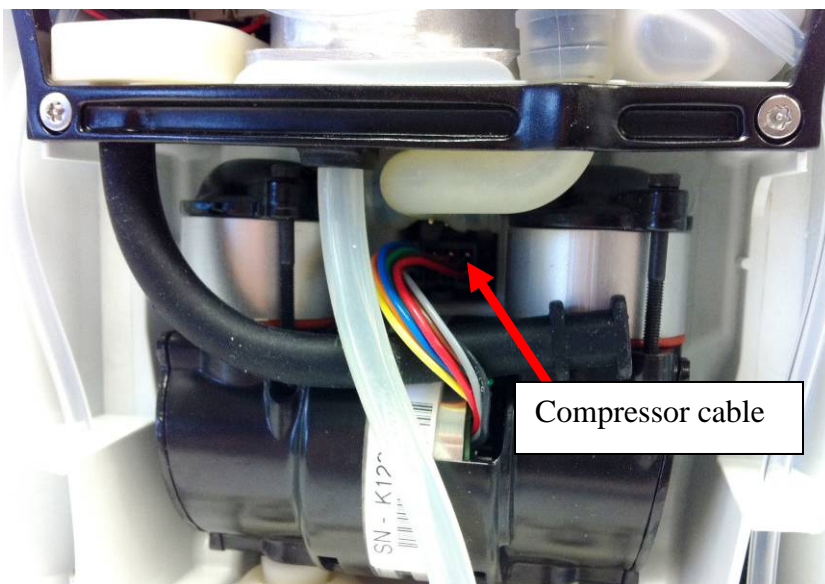


Figure 9: Detach compressor cable from motherboard

2. Unscrew the five screws that attach the motherboard to the chassis on the back side of the device (Figure 10).



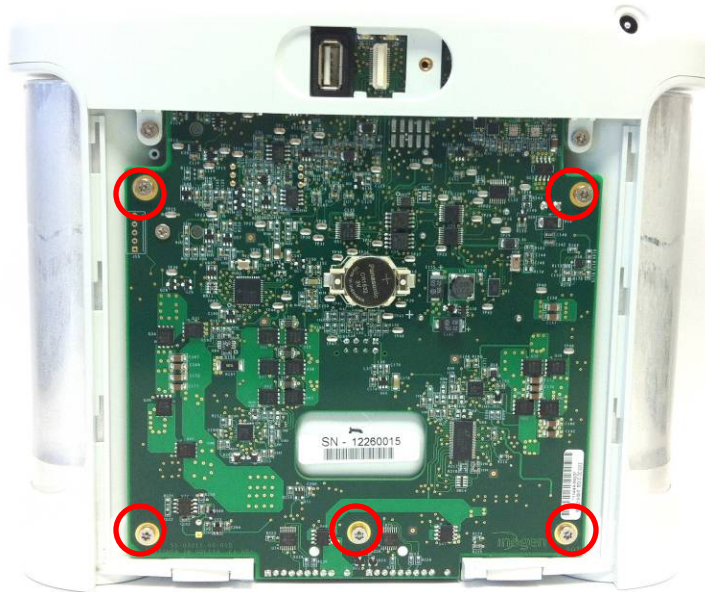


Figure 10: Screws to be removed from motherboard

3. Carefully pull the motherboard about a half inch away from the device, making sure not to bend it in any way. With the cables and tubing exposed, gently unplug the two feed waste manifold cables, the product manifold cable, and the fan cable from the motherboard (Figure 11).

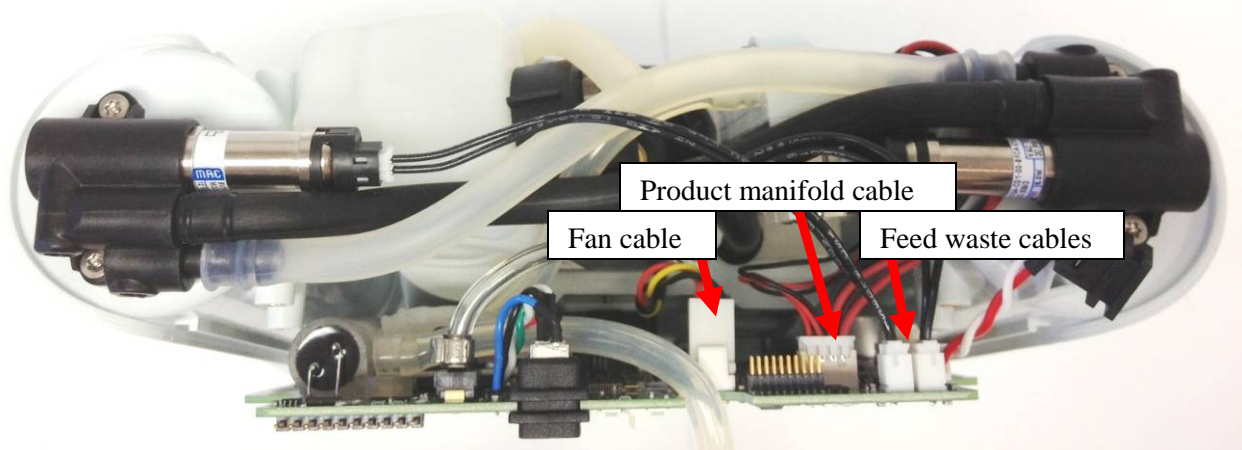


Figure 11: Disconnect all cables that connect device to motherboard

4. Unplug the oxygen sensor tubing from the product manifold by pulling the tube off of the barb. Also unplug the accumulator tubing from the accumulator cap by pushing down on the retaining ring of the quick connect while pulling gently on the tubing (Figure 12). *Pulling the tube too hard will result in breaking the pressure sensor free from the circuit board.*



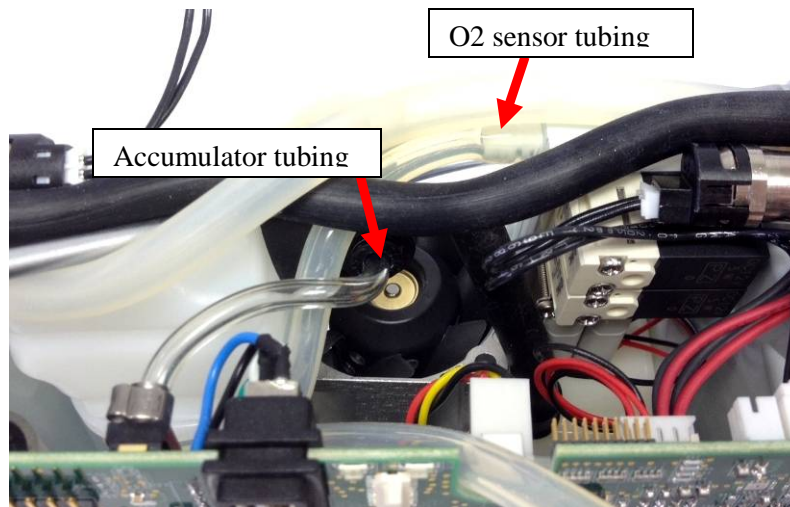


Figure 12: Disconnect all tubing that connect device to motherboard

5. With all cables and tubing detached, remove the motherboard from the device.

### Instructions for Replacing the Motherboard:

1. To install the new motherboard, make sure the screw holes are aligned with those on the chassis before reattaching the accumulator tubing and the oxygen sensor tubing (Figure 12). Make sure the oxygen sensor tube is oriented under the two T tubes. Next, reattach the feed waste manifold cables, the product manifold cable, and the fan cable (Figure 11). Gently pull on each tube/cable to ensure a complete connection.
2. Reinstall the five screws that attach the motherboard to the chassis (Figure 10). Tighten screws to 6 in-lbs.
3. Plug the compressor cable back into the motherboard (Figure 9).

### Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 8). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 7).
3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 13) then push down and toward the device to secure the housing in the chassis.



Figure 13: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

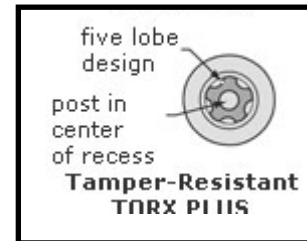
## SP-516 Inogen One G3 Filter Body Replacement

### Parts Required:

1. SP-516, G3 Housing, Filter Body

### Tools Required:

1. T10 Torx Driver
2. Small Flathead Screw Driver
3. 1/8" Hex Driver



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).

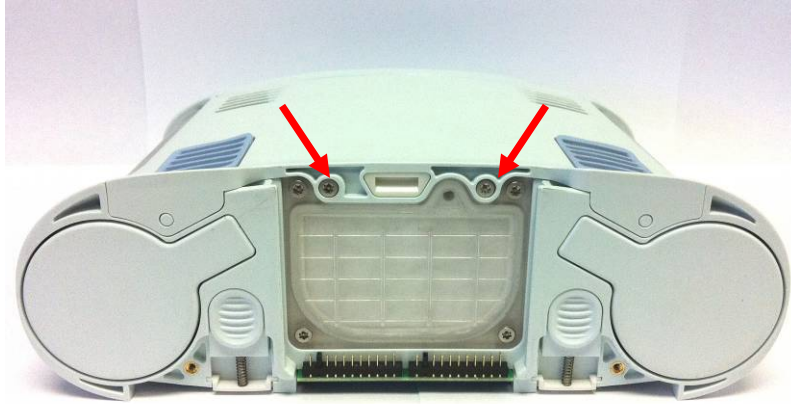


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.

### Instructions for Removing the Filter Body:

1. With the unit upright, unscrew the bottom center screw on the motherboard (Figure 5). This screw attaches the filter body to the rest of the device.



Figure 5: Location of rear filter body screw

2. Lay the unit on its back side. Unscrew the four screws that attach the filter to the filter body and remove the filter from the device (Figure 6). Use a small flathead screw driver to separate the filter from the chassis, if necessary.



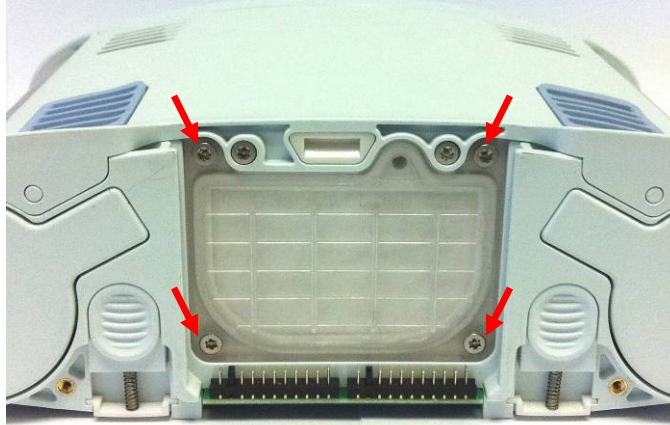


Figure 6: Filter box lid screws

3. Unscrew the two screws attaching the filter body to the chassis and unplug the tubing from the filter body (Figure 7). Plug this tube onto the same barb on the new filter body

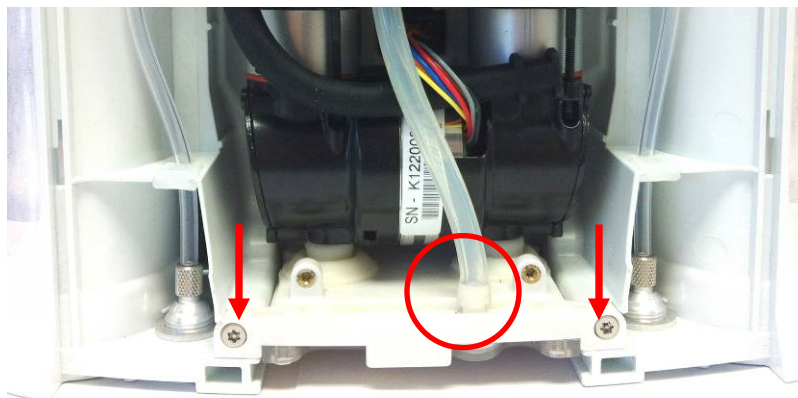


Figure 7: Front filter body screws and tubing

4. Unscrew the two screws attaching the filter body to the compressor on the underside of the device with a 1/8" hex driver (Figure 8).

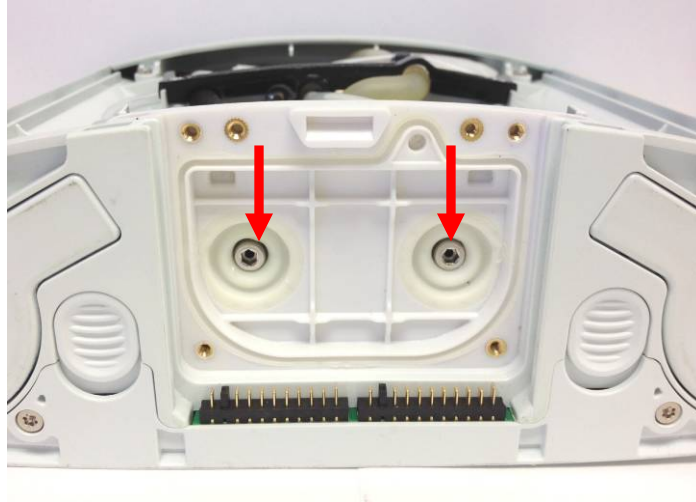


Figure 8: Compressor screws

5. Carefully slide the filter body out of the chassis to remove.

### Instructions for Replacing the Filter Body:

1. To install the new filter body, slide it into the designated space on the chassis.
2. Reinstall the two screws connecting the filter body to the compressor, lightly tightening by hand (Figure 8). Also replace the two screws attaching the filter body to the chassis (Figure 7). Tighten these screws to 6 in-lbs.
3. Replace the filter and the four screws that attach it to the filter body (Figure 6).
4. Make sure the other end of the filter body tubing is oriented in its designated space on the tube bracket (Figure 9).

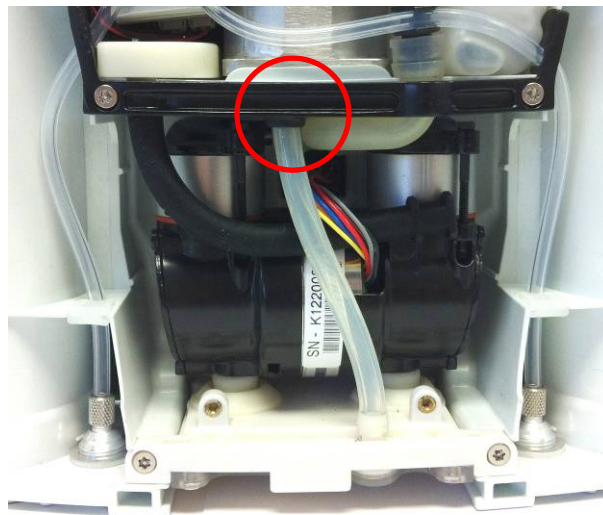


Figure 9: Properly installed filter body and tubing

5. Replace the bottom center screw on the motherboard that attaches the filter body to the motherboard (Figure 5). Tighten screw to 6 in-lbs.

## Instructions for Replacing the Housing:

1. Place the device on its back side.
2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 10) then push down and toward the device to secure the housing in the chassis.



Figure 10: Housing feet and corresponding chassis grooves

3. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
4. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
5. Return the concentrator to the upright position
6. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

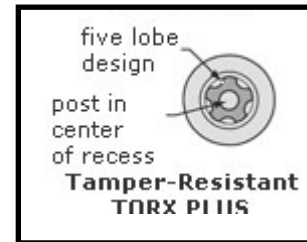
## SP-517 Inogen One G3 Tube Bracket Replacement

### Parts Required:

1. SP-517, G3 Tube Bracket

### Tools Required:

1. T10 Torx Driver



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 2)

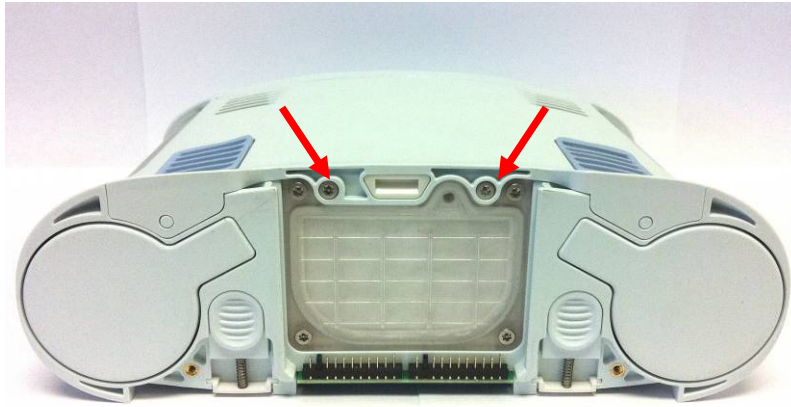


Figure 2: Location of screws

3. Slide the front housing down and away from the device then lift up to remove.

### Instructions for Removing the Tube Bracket:

1. Locate and remove the two screws that connect the tube bracket to the chassis (Figure 3).

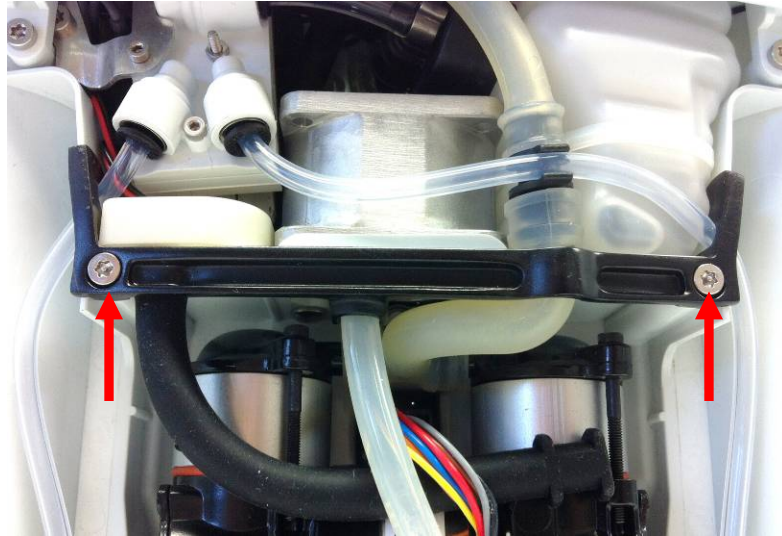


Figure 3: Tube bracket screws

2. Remove the tube bracket.

### Instructions for Replacing the Tube Bracket:

1. Install the new tube bracket, making sure that all tubes are in their respected grooves on the bracket (as seen in Figure 3) before replacing the two screws. Tighten screws to 6 in-lbs.

### Instructions for Replacing the Housing:

1. Place the device on its back side.



2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 4) then push down and toward the device to secure the housing in the chassis.



Figure 4: Housing feet and corresponding chassis grooves

3. Replace the two screws that connect the front housing to the chassis (Figure 2). Tighten screws to 6 in-lbs.
4. Return the concentrator to the upright position
5. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

## SP-518 Inogen One G3 Muffler Replacement

### Parts Required:

1. SP-518, Muffler

### Tools Required:

1. T10 Torx Driver
2. Small Flathead Screw Driver
3. 1/8" Hex Driver
4. Pliers



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.
4. The barbs on the accumulator cap are delicate and can easily be broken during removal or installation of the tubing.

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).

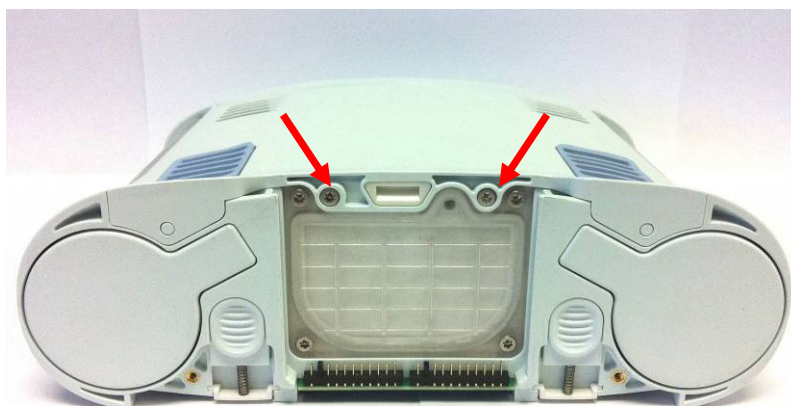


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.
6. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 5 and 6).

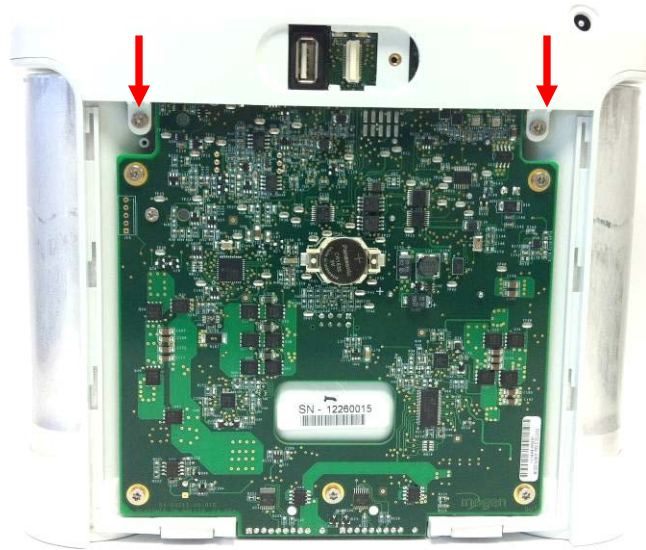


Figure 5: Location of rear screws

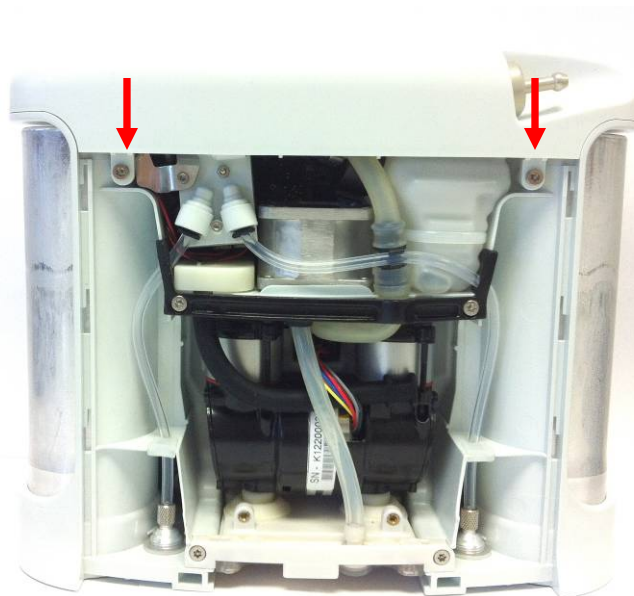


Figure 6: Location of front screws

7. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 7).



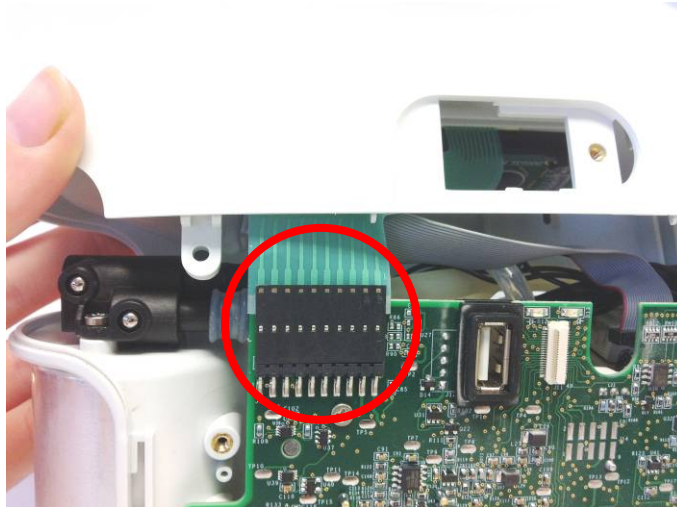


Figure 7: Unplug UIP cable from motherboard

8. Gently unplug the cannula tube from the user interface panel and the LCD cable from the motherboard (Figure 8) and set the user interface panel aside.

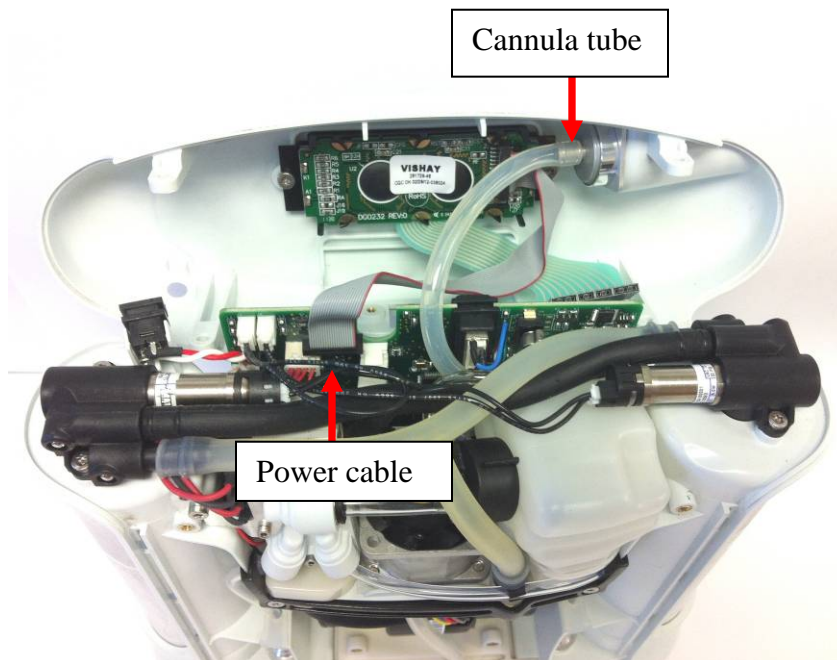


Figure 8: Remove cannula tube and power cable

### Instructions for Removing the Muffler:

1. In order to reach and remove the muffler, the product manifold and tube bracket must be removed. Locate and remove the two screws that connect the tube bracket to the chassis (Figure 9).



Figure 9: Tube bracket screws

2. Remove the tube bracket and set aside.
3. Remove the screw securing the manifold bracket to the chassis (Figure10).

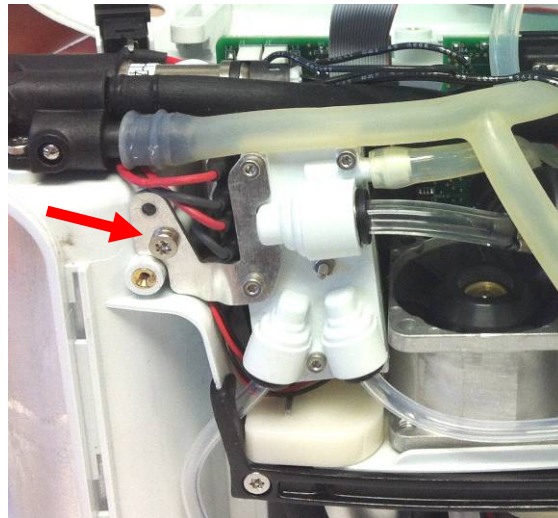


Figure 10: Manifold bracket screw

4. Carefully disconnect the product manifold cable from the motherboard using pliers to shimmy the white connector off of the pins and away from the motherboard (Figure 11).

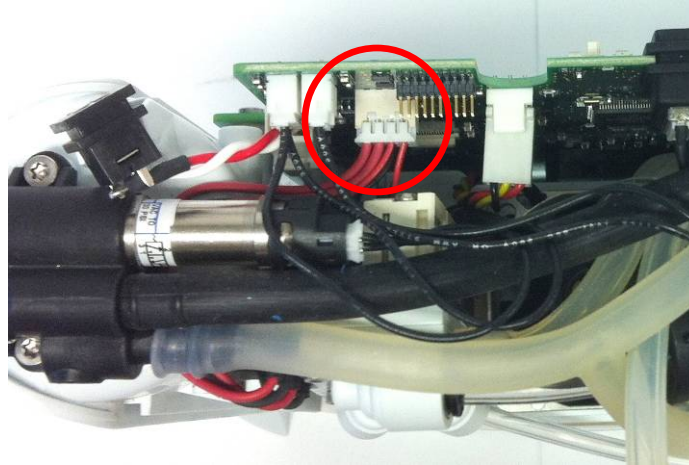


Figure 11: Product manifold motherboard cable

5. Locate the four tubes connected to the product manifold (Figure 12). One tube, the oxygen sensor tube, is connected to the manifold by a barb and can be removed using a small flathead screw driver to slide the tubing off of the barb. The other three tubes are connected by quick connect fittings and can be removed by pressing inward on the retaining ring while pulling gently on the tubing. It is recommended that the bottom two tubes, the receptacle tubes, be removed first, so that the manifold can be pulled away from the chassis to allow more room to remove the remaining accumulator tubing as the barbs on the accumulator cap are very delicate and can easily be broken during removal of the tubing.

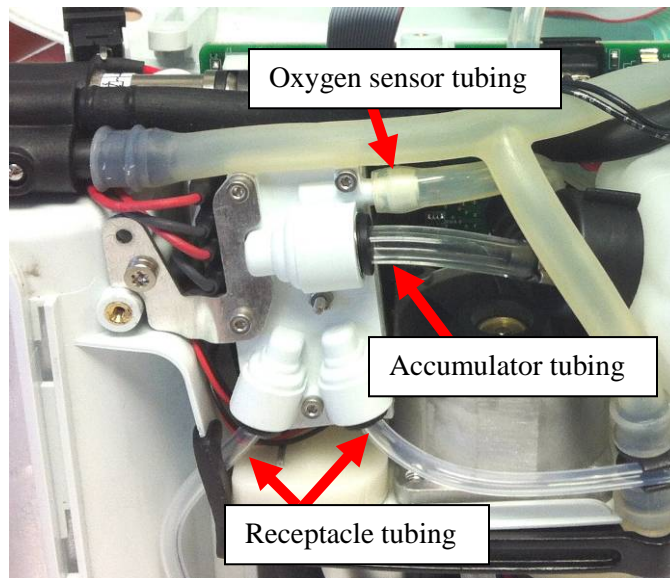


Figure 12: Product manifold tubing

6. With all tubing and cables disconnected, remove the product manifold.
7. The muffler is now accessible. Remove the exhaust T tube from the muffler's upper connector and the straight exhaust tube from the muffler's lower connector (Figure 13).



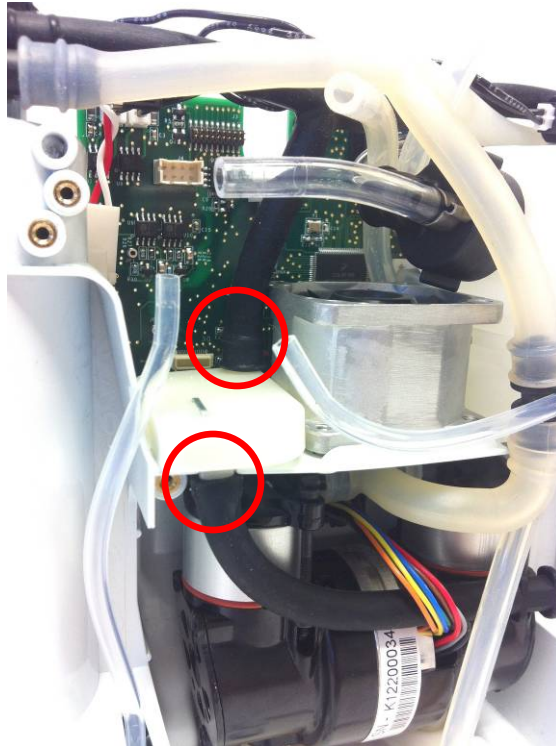


Figure 13: Muffler tubing for removal

8. Remove the muffler.

### Instructions for Replacing the Muffler:

1. Orient the new muffler with the full circle connector facing upward and the half circle connector facing the compressor (Figures 14 and 15).



Figure 14: Full circle connector



Figure 15: Half circle connector

2. Reattach the exhaust T tube to the top connector and the straight exhaust tube to the lower connector (Figure 13).

3. Replace the product manifold. Make sure the motherboard cables are oriented behind the manifold, facing the motherboard.
4. Reinstall all four tubes, starting with the accumulator tubing (Figure 12). Pull on the tubing to ensure the tubes have been correctly inserted into the manifold and do not pull out of the connectors.
5. Reconnect the manifold cable to the motherboard, making sure to orient the connector with the thicker cables on the left (Figure 16). Assure proper connection of the pins.

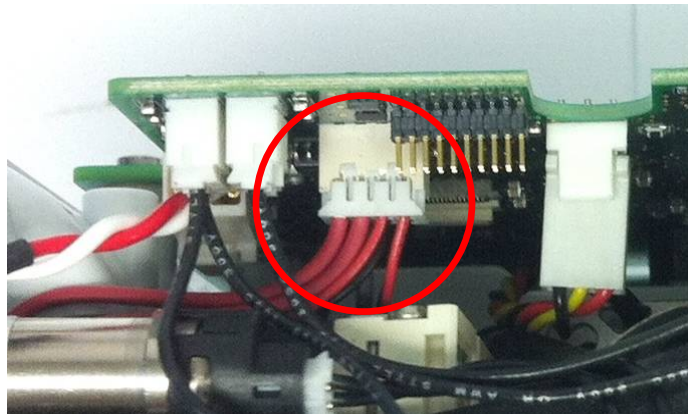


Figure 16: Orientation of product manifold cable

6. Replace the screw that connects the manifold bracket to the chassis (Figure 10). Tighten to 6 in-lbs.
7. Replace the tube bracket, making sure that all tubes are in their respected grooves on the bracket before replacing the two screws (Figure 9). Tighten screws to 6 in-lbs.

### Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 8). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 7).
3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 17) then push down and toward the device to secure the housing in the chassis.





Figure 17: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

## SP-519 Inogen One G3 LCD Cable Replacement

### Parts Required:

1. SP-519, Cable Assembly, LCD

### Tools Required:

1. T10 Torx Driver



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).

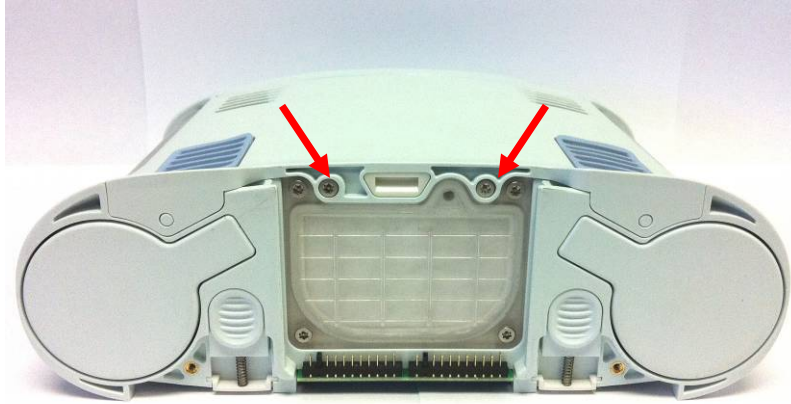


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.
6. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 5 and 6).

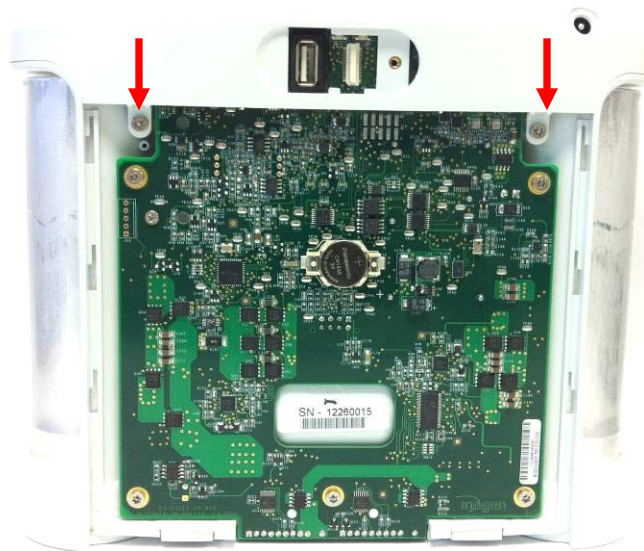


Figure 5: Location of rear screws

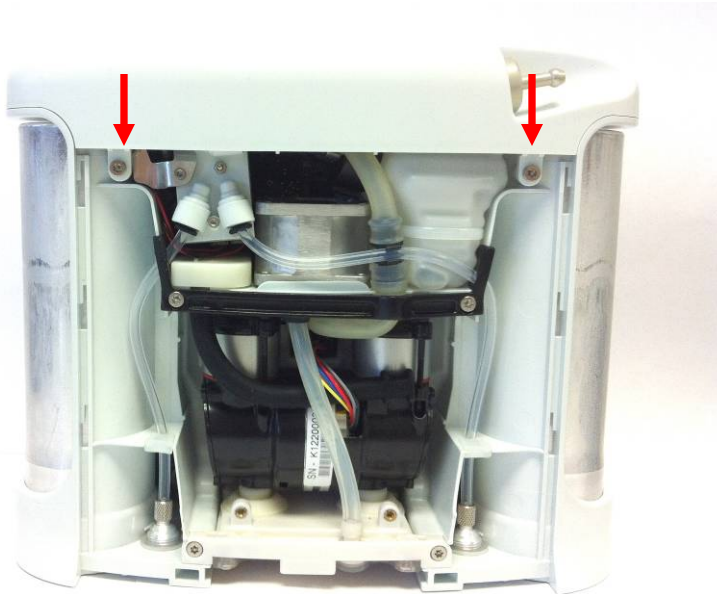


Figure 6: Location of front screws

7. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 7).

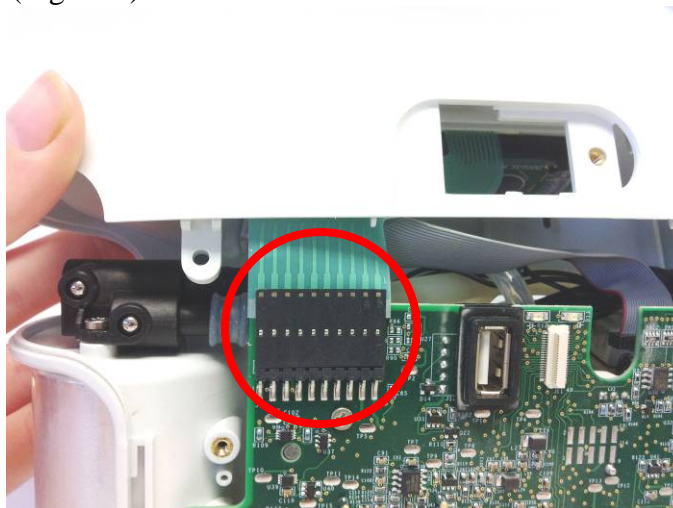


Figure 7: Unplug LCD cable from motherboard

8. Gently unplug the cannula tube from the user interface panel and the power cable from the motherboard (Figure 8) and set the user interface panel aside.



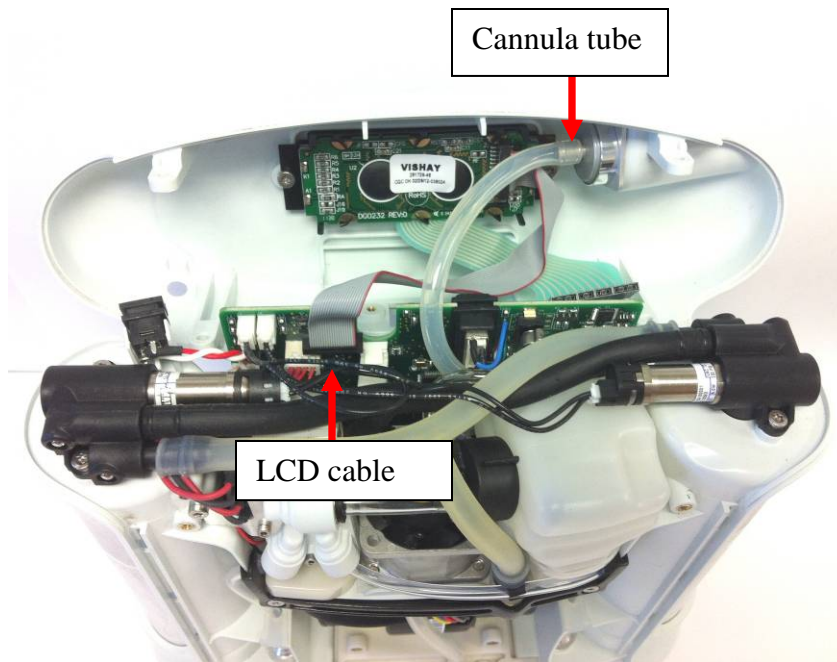


Figure 8: Remove cannula tube and power cable

### Instructions for Replacing the LCD Cable:

1. Remove the power cable from the user interface panel and install the new LCD cable. Fold the cable as shown in Figure 9. *Note the location of the red wire.*

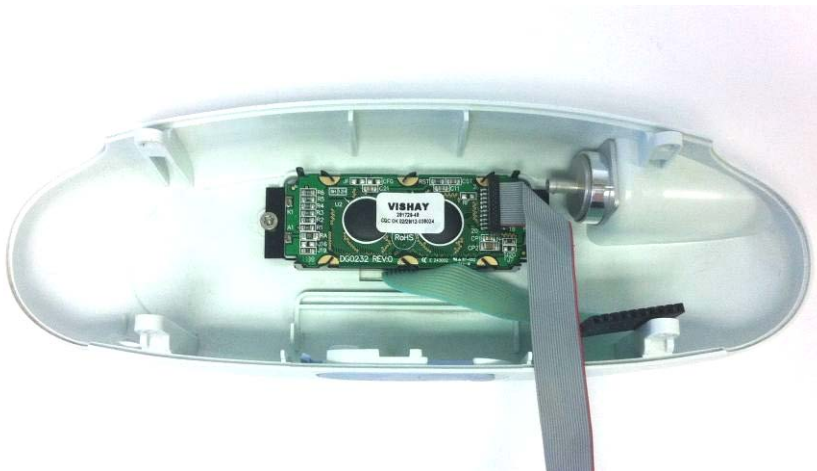


Figure 9: Orientation of LCD cable

### Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 8). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Plug the UIP cable into the motherboard (Figure 7). Double check that the cables are fully seated to ensure a complete connection.

3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 10) then push down and toward the device to secure the housing in the chassis.



Figure 10: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

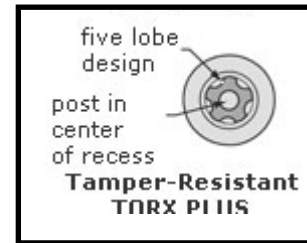
## SP-520 Inogen One G3 Dual Feed Tube Replacement

### Parts Required:

1. SP-520, Dual Feed Tube

### Tools Required:

1. T10 Torx Driver
2. Small Flathead Screw Driver
3. Pliers



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).

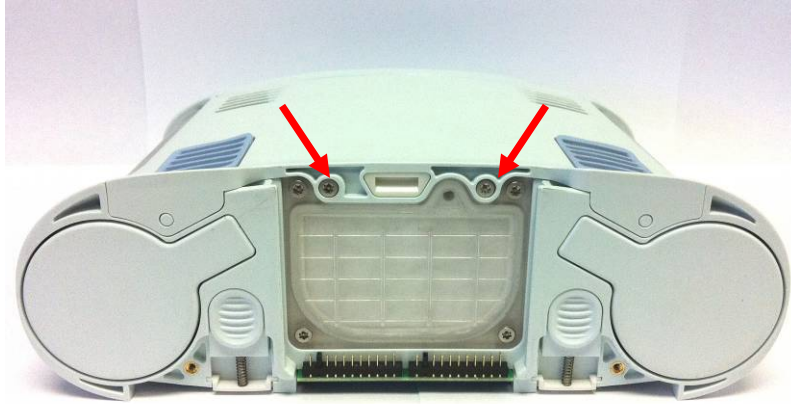


Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.

### Instructions for Removing the Dual Feed Tube:

1. Locate and remove the two screws that connect the tube bracket to the chassis and remove the tube bracket (Figure 5).

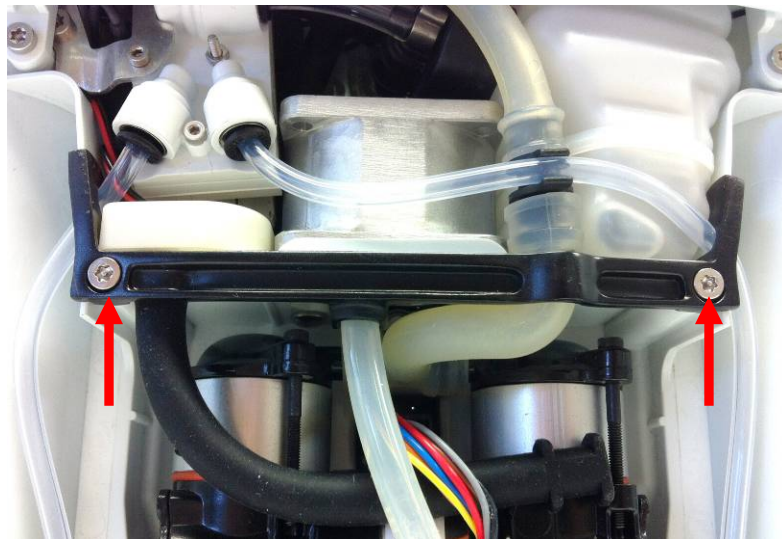


Figure 5: Tube bracket screws

2. Disconnect the compressor cable from the motherboard using pliers to push down on the release clip while pulling on the cable housing (Figure 6). *Do not pull on the compressor wires.*



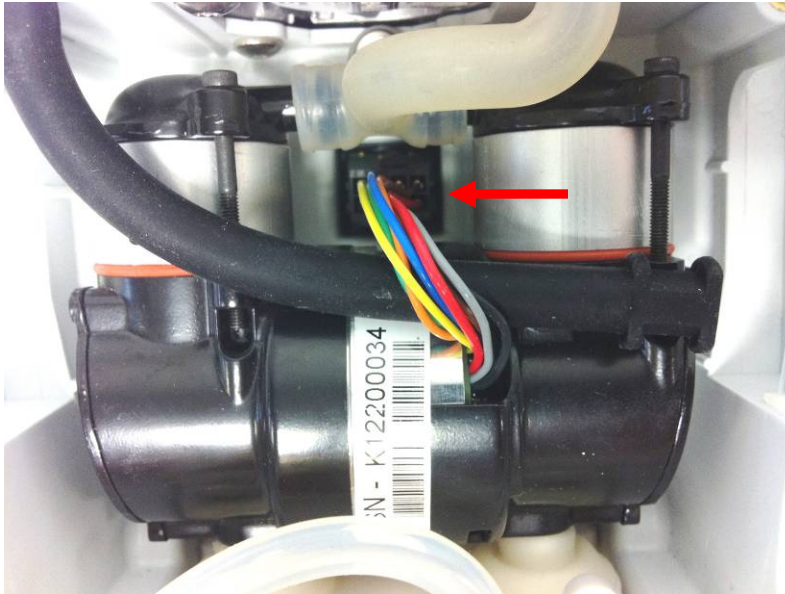


Figure 6: Compressor cable connector

3. Remove the screw and washer that connect the dual end of the feed tube to the chassis (Figure 7).



Figure 7: Dual feed tube screw and washer

4. Disconnect the singular end of the feed tube from the black inlet union using a small flathead screw driver to push the tube off of the connector (Figure 8).

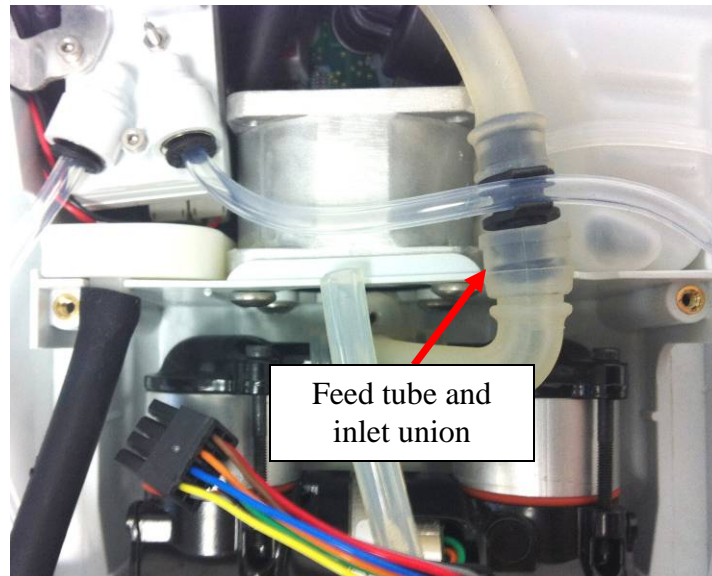


Figure 8: Remove feed tube from inlet union

5. Unscrew the two screws on the front of the device and the bottom center screw on the back of the device that connect the filter body to the chassis (Figures 9 and 10).

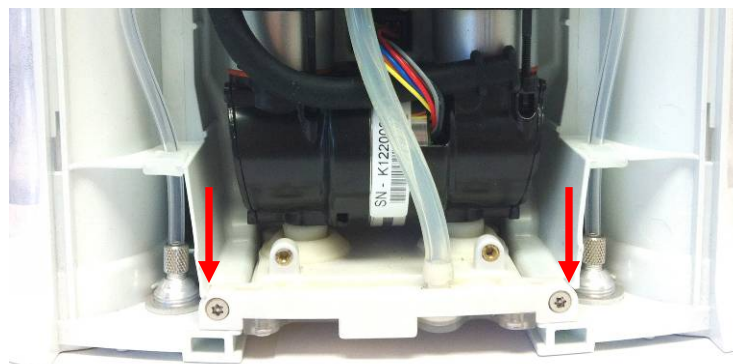


Figure 9: Location of front screws



Figure 10: Location of rear screw

6. Slide the filter body, filter, compressor, and dual feed tube out of the device as a single unit.

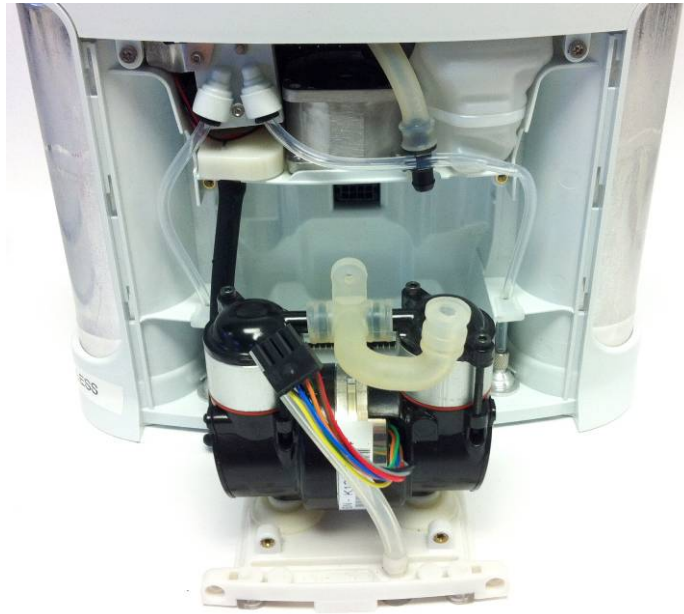


Figure 11: Removal of compressor assembly

7. Remove one end of the dual feed tube off of the compressor at a time (Figure 12) by pushing the tube down between the barbs. *Be careful not to damage the sealing area of the barb during removal.*

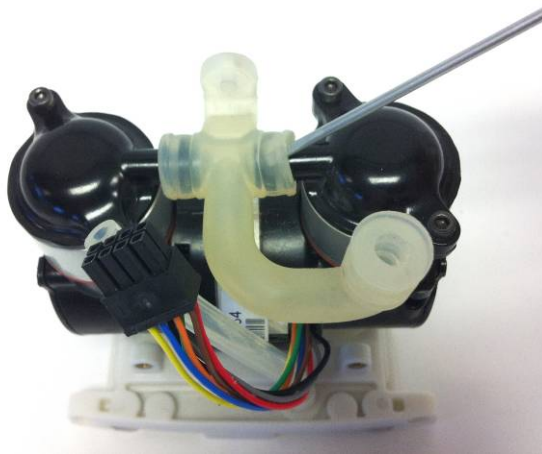


Figure 12: Remove dual feed tube from compressor

### Instructions for Replacing the Dual Feed Tube:

1. Use the same technique to install the new dual feed tube to the compressor. Use pliers to push the tube onto the connectors (Figure 13).



Figure 13: Properly installed dual feed tube

2. Slide the compressor, filter body, filter, and new dual feed tube back into the device as a single unit. The filter body slides into specific grooves in the chassis, shown in figure 14. Use these grooves to guide the whole compressor assembly into the device.



Figure 14: Filter body grooves

3. Reattach the two screws on the front of the device and the bottom center screw on the back of the device that connect the filter body to the chassis (Figures 9 and 10). Tighten screws to 6 in-lbs.



4. Reinstall the screw and washer that connect the dual end of the feed tube to the chassis, lightly tightening by hand (Figure 7).
5. Attach the other end of the feed tube back onto the black inlet union (Figure 8). The tubing seam should be rotated as far to the right as possible to prevent the compressor from striking the back of the chassis (Figure 15).
6. Plug the compressor cable back into the motherboard. (Figure 6).
7. Maneuver the exhaust tube back through the compressor cable loop (Figure 15).

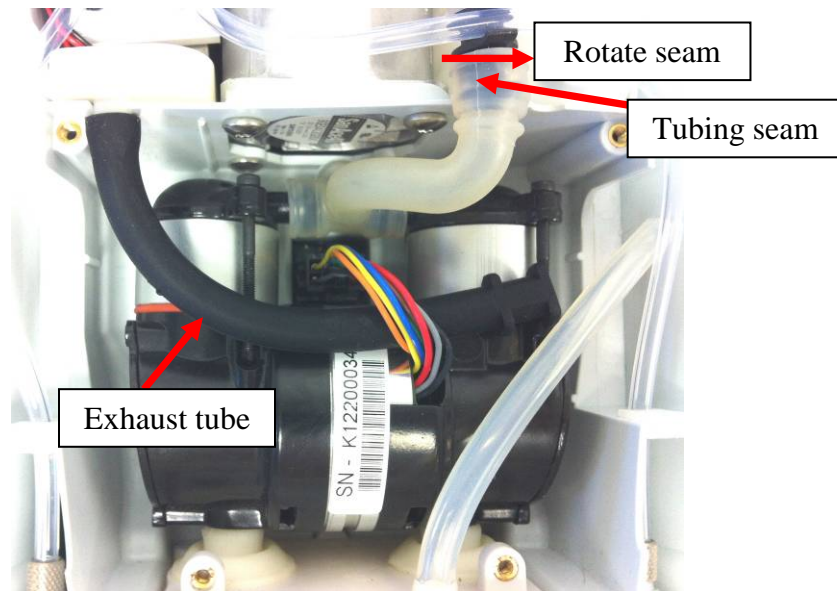


Figure 15: Exhaust tube properly oriented through compressor cable

8. Replace the tube bracket, making sure that all tubes are in their respected grooves on the bracket before replacing the two screws (Figure 5). Tighten screws to 6 in-lbs.

### Instructions for Replacing the Housing:

1. Place the device on its back side.
2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 16) then push down and toward the device to secure the housing in the chassis.





Figure 16: Housing feet and corresponding chassis grooves

3. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
4. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten screws to 6 in-lbs.
5. Return the concentrator to the upright position
6. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

## SP-521 Inogen One G3 Column Latch Replacement

### Parts Required:

1. SP-521, Kit, Column Latches

### Tools Required:

1. T10 Torx Driver



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

### Instructions for Removing the Column Latch:

1. With the device still on its front side, locate the spring nest, spring, and column latch assembly. Gently pull the spring nest away from the chassis and remove the spring nest and spring together (Figure 4).



Figure 4: Column latch assembly

2. Slide the column latch up to remove it from the chassis (Figure 5).

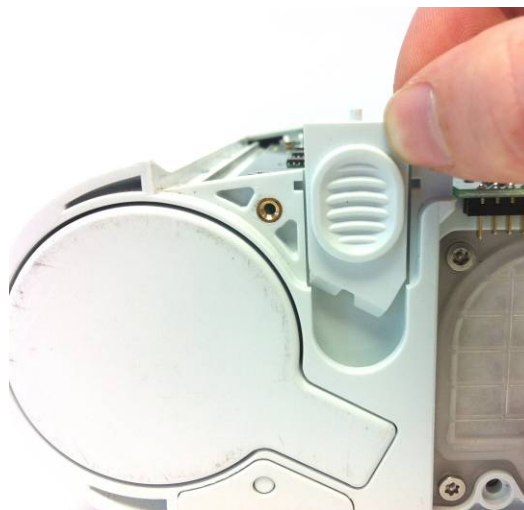


Figure 5: Column latch removal

### Instructions for Replacing the Column Latch:

1. Slide the new column latch into the chassis with the slanted end of the latch pointed downward and the small circular spring attachment on top (See figure 5 for orientation).
2. Assemble the spring and spring nest together with the spring wrapped around the circular spring attachment (Figure 6).



Figure 6: Spring and spring nest assembly

3. Make sure the tabs on the sides of the spring nest are closest to the chassis before orienting the other end of the spring onto the circular spring attachment on the column latch.
4. Carefully press down on the spring nest and spring to set the spring nest tabs into the grooves in the chassis (Figure 7).



Figure 7: Properly seated spring nest and column latch

5. If the column latch isn't fully seated against the bottom of its space in the chassis as shown in figure 7, push the column further into the device until it clicks in place.
6. If replacing both column latches, repeat procedure for the other column latch.

### **Instructions for Replacing the Housing:**

1. Place the device on its front side and seat the feet of the back housing into the corresponding grooves on the chassis (Figure 8) then push down and toward the device to secure the housing in the chassis.





Figure 8: Housing feet and corresponding chassis grooves

2. Replace the two screws that connect the back housing to the chassis (Figure 2). Tighten screws to 6 in-lbs.
3. Return the concentrator to the upright position
4. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

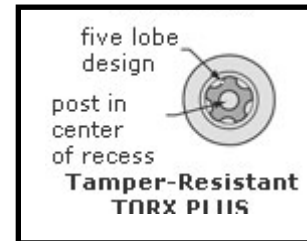
## SP-522 Inogen One G3 Column Receptacle Replacement

### Parts Required:

1. SP-522, Kit, Column Receptacles

### Tools Required:

1. T10 Torx Driver



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

### Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 2).

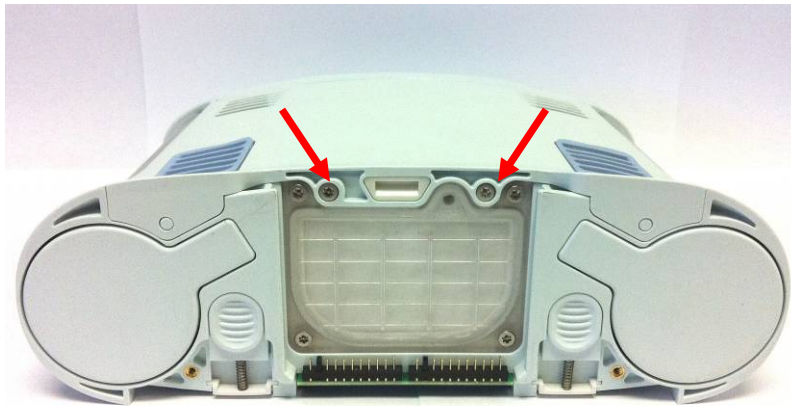


Figure 2: Location of screws

3. Slide the front housing down and away from the device then lift up to remove.

### Instructions for Removing the Column Receptacle:

1. With the device still on its back side, unscrew the two tube bracket screws (Figure 3) and remove the tube bracket and set aside.
2. Disconnect the manifold tube corresponding to the receptacle being removed. Do this by pressing down on the retaining ring while pulling gently on the tubing.

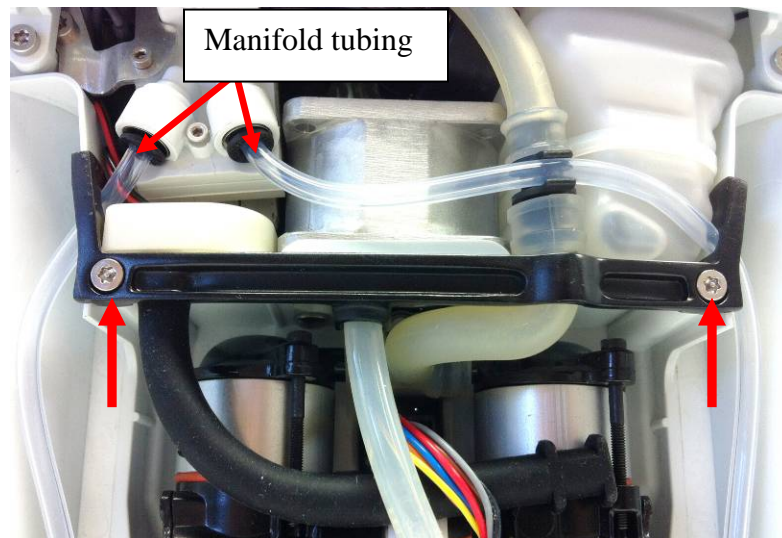


Figure 3: Tube bracket screws

3. In order to remove the receptacle, the corresponding column must be removed. Locate the column latch on the underside of the device (Figure 4) and push downward on it while simultaneously pulling the column out of the chassis. Remove the column and set aside.

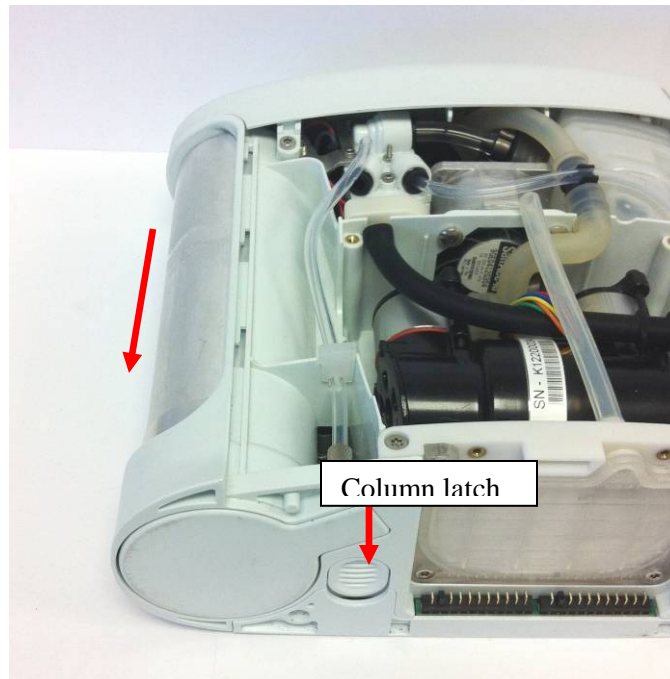


Figure 4: Location of column latch and direction to pull column

4. Remove the receptacle filter disc by blowing it out of the receptacle with compressed air. Set aside for later reinstallation.
5. Using a T10 torx driver, unscrew the receptacle from the underside of the chassis while pressing down on the column latch to lower the column latch teeth (Figure 5). Remove the receptacle through the bottom of the device. The receptacle washer should remain in place on the other side of the chassis.

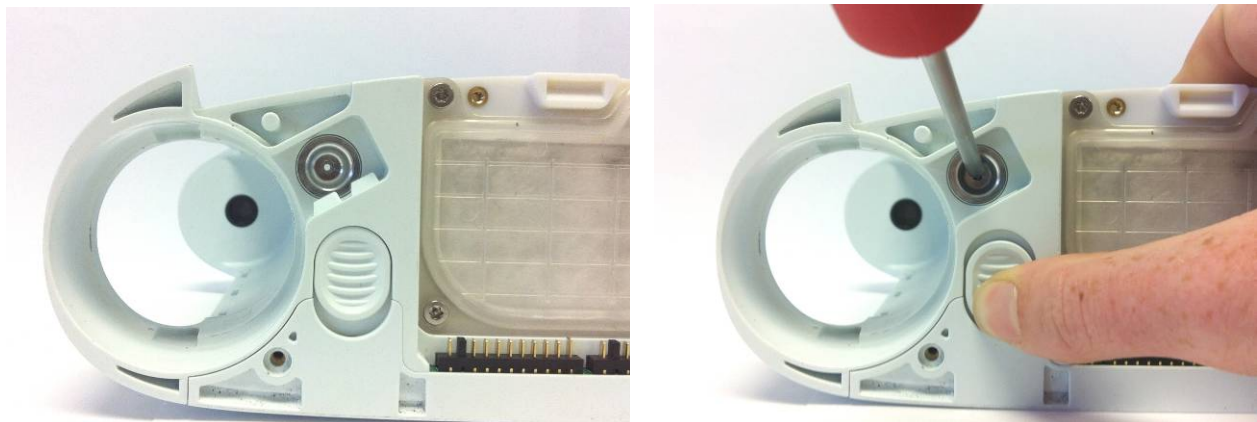


Figure 5: Push down on column latch while unscrewing receptacle

### Instructions for Replacing the Column Receptacle:

1. Feed the new receptacle and tubing assembly up through the washer, threading them in and tightening to 3 in-lbs while pressing down on the column latch to lower the column latch teeth (Figure 5). Using compressed air, blow out any debris from the tubing end of

the receptacle prior to installing the tubing into the manifold or the column into the receptacle.

2. Replace the receptacle filter disc into the receptacle.
3. Reinstall the column. If the column latch isn't fully seated against the top of its space in the chassis, push the column into the device until it clicks in place (Figure 6).



Figure 6: Correctly installed column (*Note location of column latch*)

4. Reattach the receptacle tubing to its quick connect on the manifold (Figure 7). Gently pull on the tubing to ensure a complete connection.

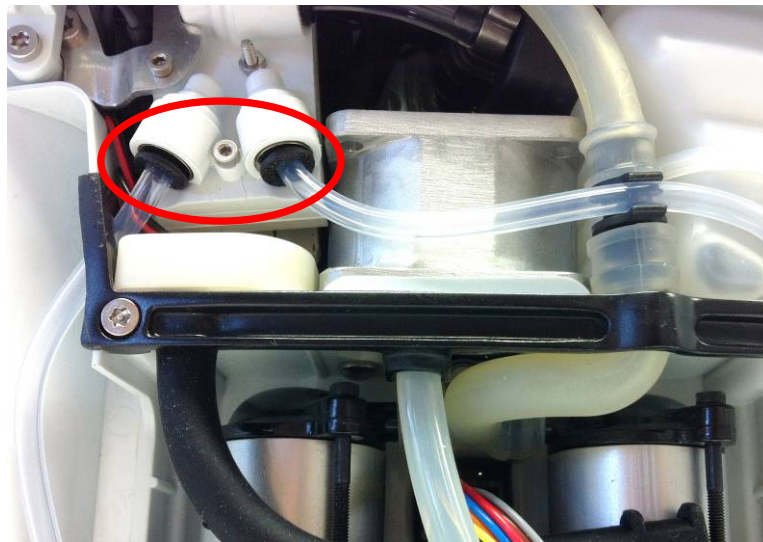


Figure 7: Manifold quick connects for receptacle tubing

5. If replacing both column receptacles, repeat procedure for the other receptacle.
6. Replace the tube bracket and the two screws that hold it in place, making sure that all tubes are properly oriented in their respected positions on the bracket (Figure 3). Tighten screws to 6 in-lbs.



7. Assure both lower grommets are in place against the receptacle tubes (Figure 8).



Figure 8: Left lower grommet

### Instructions for Replacing the Housing:

1. Place the device on its back side.
2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 9) then push down and toward the device to secure the housing in the chassis.



Figure 9: Housing feet and corresponding chassis grooves

3. Replace the two screws that connect the front housing to the chassis (Figure 2). Tighten screws to 6 in-lbs.
4. Return the concentrator to the upright position

5. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

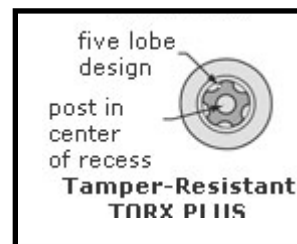
## SP-523 Inogen One G3 Chassis Replacement

### Parts Required:

1. SP-523, Housing, Chassis

### Tools Required:

1. T10 Torx Driver
2. Small Flathead Screwdriver
3. Pliers
4. Scissors
5. 1/8" Hex Driver



### Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.
4. The barbs on the accumulator cap are delicate and can easily be broken during removal or installation of the tubing.

### Instructions on Replacing the Chassis:

1. See "SP-501 and SP-502 Inogen One G3 Front and Rear Housing Replacement" for instructions on removing the housing.
2. Locate and remove the two lower grommets that hold the receptacle tubing in place (Figure 1).



Figure 1: Lower grommet

3. See “SP-522 Inogen One G3 Column Receptacle Replacement” for instructions on removing the column receptacles, attached tubing, columns, and tube bracket. Also remove the receptacle washers from the housing (Figure 2).



Figure 2: Receptacle washer

4. See “SP-521 Inogen One G3 Column Latch Replacement” for instructions on removing the column latches.
5. See “SP-503 Inogen One G3 User interface Panel Replacement” for instructions on removing the user interface panel.
6. See “SP-515 Inogen One G3 Motherboard Replacement” for instructions on removing the motherboard.
7. Remove chassis gasket from back of chassis (Figure 3).



Figure 3: Chassis gasket

8. See “SP-518 Inogen One G3 Muffler Replacement” for instructions on removing the muffler and product manifold. There is no need to disconnect the lower exhaust tube from the muffler. These parts can be installed on the new chassis as one unit.
9. See “SP-513 Inogen One G3 Accumulator Replacement” for instructions on removing the accumulator.
10. See “SP-512 Inogen One G3 Feed Waste Manifold Replacement” for instructions on removing the feed waste manifolds. Do not disconnect the feed waste manifolds from their tubing. Remove the feed waste manifolds, exhaust T tube, and upper feed tube as a single unit. The exhaust T tube should be free for removal but the upper feed tube can be removed from the device by disconnecting it from the inlet union (Figure 4).



Figure 4: Remove upper feed tube from inlet union

11. See “SP-508 Inogen One G3 Fan Replacement” for instructions on removing the fan, compressor, filter body, filter assembly and all attached tubing. There is no need to detach the inlet union from the dual feed tube. These parts can be installed on the new chassis as one unit.



12. Now that all parts have been removed from the chassis, they can be installed onto the new chassis.
13. See “SP-508 Inogen One G3 Fan Replacement” for instructions on replacing the fan, compressor, filter body, filter assembly and all attached tubing.
14. See “SP-512 Inogen One G3 Feed Waste Manifold Replacement” for instructions on replacing the feed waste manifolds, exhaust T tubing, and upper feed waste tubing. Reconnect the upper feed tube to the inlet union (Figure 4).
15. See “SP-513 Inogen One G3 Accumulator Replacement” for instructions on replacing the accumulator.
16. See “SP-518 Inogen One G3 Muffler Replacement” for instructions on replacing the muffler, exhaust tube, and product manifold.
17. Replace chassis gasket on back of chassis (Figure 3).
18. See “SP-515 Inogen One G3 Motherboard Replacement” for instructions on replacing the motherboard.
19. See “SP-503 Inogen One G3 User interface Panel Replacement” for instructions on replacing the user interface panel, starting with Step 4.
20. See “SP-521 Inogen One G3 Column Latch Replacement” for instructions on replacing the column latches.
21. Replace the receptacle washers (Figure 2) then see “SP-522 Inogen One G3 Column Receptacle Replacement” for instructions on replacing the column receptacles, attached tubing, columns, and tube bracket.
22. Replace the two lower grommets that hold the receptacle tubing in place (Figure 1).
23. See “SP-501 and SP-502 Inogen One G3 Front and Rear Housing Replacement” for instructions on replacing the housing.

## Inogen One G3 Troubleshooting Guide

I	Power Fault	Expected Behavior	Abnormal Behavior	Fault	Troubleshooting & Repair
	No Power	Concentrator beeps and Inogen logo appears on the LCD when external power is plugged in	No response to AC power, concentrator will not turn on	There is no 3.3V power to the processor	<p>Check power supply power indicator light to ensure power supply is receiving power and functioning.</p> <p>Check that the power cable is correctly plugged into the circuit board. If problem still exists, replace the motherboard</p>
	Power Supply	Green light is present on Power supply and solid	Green light is flashing	Power supply is overheated	<p>Ensure power supply has adequate ventilation space</p> <p>Place power supply on a hard surface instead of carpet</p>
		Green light is present on UPS and solid	Green light is flashing	A short circuit is present	Try a different power supply on the same concentrator to determine if the short is in the power supply or the concentrator. If the short is in the concentrator replace the power input harness or the motherboard.
		Green light is present on UPS and solid	Power is intermittent	The cable from the UPS to the concentrator is damaged due to tightly wrapping the cord	Wiggle and bend the cord to see if the power to the concentrator fails. If yes, replace the power supply
	Auto Power	Concentrator runs and charges battery on DC automobile power	Automobile receptacle fuse blows or overheats	The Cigarette lighter adapter plug on the cord is set improperly	Switch the setting on the cigarette lighter adapter plug to Wide from Narrow

			Automobile receptacle fuse blows or overheats	The power outlet on the automobile is not rated to handle 120W	<p>Check car manual for electrical specification of the power outlet or use a different outlet in the car</p> <p>If automobile power outlet is not rated to handle 120W then the concentrator cannot be used with automobile power (in this car) without a dedicated outlet and wiring.</p>
	Auto Power	Concentrator runs and charges battery on DC automobile power	Automobile does not power the concentrator	The input voltage is too low	Try a different outlet in the vehicle. If problem persists, replace the auto power cable with a DC power supply (BA-302) to increase the voltage output.
1	Power Fault	Expected Behavior	Abnormal Behavior	Fault	Troubleshooting & Repair
	Battery Power	<p>Concentrator displays the Inogen logo on the LCD screen and beeps when a battery is inserted</p> <p>Empty battery voltage = 12.0V</p> <p>Full battery voltage = 16.8V</p>	<p>No reaction when battery is installed</p> <p>Battery stays at 0% while external power is present</p> <p>Battery Icon is flashing on the LCD screen</p>	The battery is depleted or not recognized by the concentrator	<p>Remove and reinsert the battery or apply external power to bring the concentrator into standby mode</p> <p>Charge the battery by attaching external power.</p> <p>The battery might need 1-2 hours before normal charging begins if the battery is severely depleted (ie, left on a concentrator during storage).</p> <p>If battery charging never resumes, then the battery should be replaced</p> <p>Check the battery voltage by measuring the voltage across the outside two pins on the battery</p> <p>Verify that the connector receptacle and connector pins are not bent or damaged.</p>
		Concentrator displays charging status and remaining run time status	Battery time remaining says 0:00	<p>The concentrator is not communicating with the battery</p> <p>Or the battery might be severely depleted and in need of charging</p>	Shut down the concentrator and then restart it. If the problem persists, try a different battery or a different motherboard

		The battery icon on the LCD shows the approximate charge of the battery	No battery icon is present even though a battery is attached	The concentrator is not communicating with the battery	Shut down the concentrator and the restart it. If the problem persists, try a different battery. If the problem cannot be resolved, replace the motherboard
2	Error Message	Normal Display	Error Display	Fault	Troubleshooting & Repair
	Error 1	No Error Message	System Power Error	<p>The battery attached to the concentrator is depleted or bad</p> <p>OR</p> <p>The UPS voltage is irregular</p>	<p>Try a different battery if available or charge the battery and try again. If the system will not respond to a known good battery, replace the motherboard</p> <p>Try the other input of the UPS to determine if the UPS needs to be replaced (ie, try AC or DC)</p>
	Error 2	No Error Message	Software Error	The Software has encountered an error	Remove power and restart the concentrator. If the error repeats the motherboard needs to be replaced
	Error 4 / 4B	No Error Message	Pressure Error	The system pressure alarm has triggered	<p>Error 4: check that the system pressure is not greater than 30 PSI</p> <p>Error 4B: check that the columns are properly installed. SW version 1.1 may have false alarms for error 4B and should be updated to the latest SW revision to resolve the false errors</p>
	Error 16	No Error Message	System Current Error	The compressor likely did not start when the system was powered on	<p>Inspect the wire harness from the compressor for wear or damage against the metal compressor housing, if the wires are worn through, replace the compressor</p> <p>If Harness is not damaged, replace the motherboard if an alternate compressor will not run from the motherboard</p>
	Error 128	No Error Message	Sensor Error	One of the sensors is giving bad readings	Remove AC and battery power and restart the concentrator. If the error repeats after several attempts the motherboard needs to be replaced
	Oxygen Low	No Error Message		Oxygen < 82% for 30 minutes Causes of this error	If this error persists, the tubing should be checked for leaks or kinks. If no tubing problems are found, replace the zeolite beds or the product manifold

	Oxygen Error	No Error Message		Oxygen < 50% for 10 minutes Various Causes of this error	If no tubing kinks or leaks are found, replace the feed/waste or product manifolds to resolve the problem
2	Error Message	Normal Display	Error Display	Fault	Troubleshooting & Repair
	O2 Sensor Failure	No Error Message	Oxygen Sensor Error	The O2 sensor is giving false readings	Replace the oxygen sensor
	System Hot	No Error Message	System Hot Shutdown	The cooling fan is not functioning  OR  The exhaust vent is blocked by the carry bag	Allow the concentrator to cool for 10 minutes. If the error occurs immediately when started, replace the cooling fan  Clear the vent and resume using the concentrator
	System Cold	No Error Message	System Cold Shutdown	The concentrator will not start-up when stored in temperatures below 4C.	Allow the concentrator to warm up in a room temperature environment for 10 minutes and then restart the concentrator  If the problem persists replace the motherboard
	Battery Error	No Error Message	Battery Error	The concentrator is not communicating with the battery	Shut down the concentrator, remove the battery and the restart the concentrator and replace the battery  If the problem persists, turn off the concentrator and allow the battery to charge for 4 hours  If the problem persists, try a different battery  If the problem persists, replace the motherboard
	Service Needed	No Error Message	Service Needed and Red LED on LCD	The compressor has reached its maximum speed and needs service within approximately 30 days  Or the Feed/Waste Valve is malfunctioning, and no O2 is being delivered while this error is present	Repair or replace the concentrator when possible by replacing the compressor or the feed waste valve  If F/W manifold is faulty, plugging the black exhaust tube will start the PSA cycle confirming the F/W manifold was stuck in an indeterminate position



	O2 Delivery Error	No Error Message	O2 Delivery Error	The system detected a breath but did not detect a bolus delivery	Check for kinked tubing to the breath detect sensor. Replace the breath detect sensor or the Product manifold to resolve the no bolus condition.
3	Abnormality	Normal Behavior	Abnormal Behavior	Fault	Troubleshooting & Repair
	Noise	Concentrator should be free of rattles and whistles	Concentrator makes loud noise when running	Compressor tube not seated correctly	<p>Push the tubing onto the compressor output so that it is all the way flush against the end of the barb. Rotate the tubing so that the compressor does not hit the rear wall of the chassis</p> <p>Check that the compressor mounts are not torn</p>
			Concentrator makes a whistling sound during part of the operating cycle	Product manifold check valve may have debris in it or may be misassembled	Replace the product manifold

## Required Tools

Tool	Notes
T10 Torx Driver	
Small Flathead Screwdriver	
Pliers	
Scissors	
1/8" Hex Driver	
Ultrasonic Oxygen Analyzer	Invacare Check O2 Plus
Ultrasonic Oxygen Analyzer	Salter Labs ProO2 Check Elite
Inogen Spanner Wrench	For cannula barb removal